LGBT-Competence in Social Work Education:

The Relationship of School Factors to Professional Competence

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DISSERTATION

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This dissertation is dedicated to my wife, Shannon, whose love sustains me, and whose kindness and curiosity inspire me to be a better person.

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LIST OF ABBREVIATIONS

AggPOC   Aggregated participant Organizational LGBT-Competence

CSWE   Council on Social Work Education

GICS   Gender Identity Competency Scale

DOC   Director-perceived Organizational LGBT-Competence

HLM   Hierarchical Linear Modeling

LGBT   Lesbian, Gay, Bisexual, Transgender

MDCC   Multidimensional Cultural Competence

MSW   Master of Social Work

NASW   National Association of Social Workers

POC   Participant Organizational LGBT-Competence

SOCCS   Sexual Orientation Counselor Competency Scale

SOGE   Sexual Orientation and Gender Expression

SUMMARY

A study was conducted examining cultural competence with lesbian, gay, bisexual, and transgender people/issues (LGBT-competence) in social work education using a quantitative, cross-sectional approach. Through internet-hosted electronic surveys, data was collected from a hierarchically structured sample of 34 master of social work (MSW) programs, inclusive of sub-samples of 34 program directors, 242 faculty members, and 1109 students. All participants were asked to reflect on the organizational LGBT-competence of their MSW program. Student participants were additionally asked to reflect on their self-perceived individual LGBT-competence. Information on organizational and individual-level demographic factors was also collected. This information was used to examine differences in perceptions of organizational LGBT-competence between participant groups within the same MSW program, and the relationship between organizational and individual-level LGBT-competence within schools of social work.

Results indicate program directors, faculty members, and students from the same MSW program have different perceptions of their program's organizational LGBT-competence. Specifically, program directors rated their program higher than faculty members, who in turn rated their program higher than students from the same program. A significant relationship was also found between a program's organizational LGBT-competence and the individual LGBT-competence of students within that program, such that programs with higher levels of organizational LGBT-competence also had students with higher levels of individual LGBT-competence.

CHAPTER 1 — INTRODUCTION

A.   **Background and Scientific Rationale**

In recent years, social work education has become increasingly concerned with efforts to

produce professionals capable of effectively supporting lesbian, gay, bisexual, and transgender

(LGBT) clients. Increased application of concepts of cultural competence, commitments to

educational policies in support of such sexual and gender minorities, and growing research on

the quality of LGBT content in social work education signal intent to ameliorate such concerns

within the profession (Council on Social Work Education [CSWE], 2008; Martin et al., 2009,

National Association of Social Workers [NASW], 2001). Yet many barriers to LGBT-competent

education in social work persist, including a lack of LGBT-competence amongst social workers,

limited approaches to LGBT issues in social work education, and an inadequacy of social work

programs to prepare students for work with LGBT populations (Martin et al., 2009; Newman,

Dannenfelser, & Benishek, 2002; Swank & Raiz, 2010). It also is argued, and has been for many

years, that some social work educational environments have structures and practices that present

or reinforce homophobic (aversion or hatred toward sexual minorities) or heterosexist

(promoting or valuing heterosexuality above sexual minority identity) perspectives (Hylton,

2005; LaSala, 2008; Morrow, 1996). Furthermore, gender minority issues often ignored in social

work or conflated with sexual minority issues appear particularly problematic, as social work

students show higher levels of transphobia than homophobia (Logie, Bridge, & Bridge, 2007)

and social work education appears less concerned with and less prepared for addressing

transgender-specific issues compared to LGB – specific issue (Fredriksen-Goldsen, Woodford,

Luke, & Gutierrez, 2011; Martin et al. 2009). These existing limitations to LGBT-competent

education may cause harm to the quality of social work educational environments and the

professionals they produce, as demonstrated by evidence suggesting that some social work students are unprepared for work with sexual and gender minorities (Holley & Segal, 2005; Martin et al., 2009), and that LGBT students and faculty often feel uncomfortable or unwelcome in social work programs (Dentato, Craig, Messinger, Lloyd, & McInroy, 2013; Hylton, 2005; La Sala, Jenkins, Wheeler, & Fredriksen-Goldsen, 2008).

Research exploring how social work might address such challenges to LGBT-competence is a relatively new endeavor and remains underdeveloped. Most efforts in this domain focus on applying concepts of cultural competence to examination or development of individual practitioner competencies with sexual and gender minorities (Kissinger, Lee, Twitty, & Kisner, 2009; Rutledge, Siebert, Seibert, & Chonody, 2012; Swank & Raiz, 2010). While such efforts have developed critical knowledge of factors associated with LGBT-competent practice, current understanding of LGBT-issues in social work remains insufficient. This is because most applications of cultural competence to this domain: (1) neglect to examine the role social work education plays in LGBT-competence development, and (2) lack the necessary complexity to provide insight into LGBT-competence beyond individual-level analysis. These limitations are particularly troubling considering social work education is the predominant structure through which future social workers develop professional competence, and yet this education continues to struggle with LGBT-competence across multiple levels of analysis.

Recognition of this limitation has led to a few theoretical explorations of the influence organizational learning environments have on development of student LGBT-competence that suggest positive organizational factors can significantly impact individual professional development (Gezinski, 2009; Messinger, 2002; Van Den Berg & Crisp; 2004). Empirical studies examining LGBT-competence within social work educational contexts are also few in

number. While these studies do provide valuable information, their results are limited in that they rely on either data derived from faculty asked to evaluate their own programs (Martin et al., 2009; Fridriksen-Goldson, et al., 2011) or the experiences of LGBT-identified students (Hylton, 2005; Newman, Bogo, & Daley, 2008). No study that includes data drawn from a sample of both faculty and students has explored organizational-level LGBT-competence in social work education. This reveals another important limitation in our understanding of LGBT-competence in social work education that calls into question the accuracy of previous attempts to assess organizational-level qualities of social work programs. It may stand to reason that students and faculty perceive the quality of their social work program differently. As paid employees of and key contributors to their organizational contexts, faculty may also be more likely than students to rate their programs highly. Therefore, any examination of the organizational LGBT-competence of a social work program that excludes either faculty or student perspectives may be missing a key piece of the puzzle. Identifying if and where such differences in perceptions exist could prove vital in attempts to accurately assess the quality of LGBT education in social work or reveal where organizational competency might be improved.

Despite such limitations, the small body of literature on this topic does identify a number of organizational factors believed to be integral to creating LGBT-positive learning environments conducive to production of LGBT-competent social work professionals. These highlighted factors suggest that a LGBT-competent social work program is one that: (1) includes attention to LGBT-issues in course content across curriculum concentrations; (2) has faculty/staff who are LGBT-competent and recognize the importance of LGBT issues; (3) has policies/structures that are supportive of sexual and gender minorities; (4) produces students who feel prepared to work with sexual and gender minorities; and (5) provides all students with a

safe, comfortable, and welcoming learning environment (Fredriksen-Goldsen et al., 2011; Gezinski, 2009; La Sala et al., 2008; Martin et al., 2009; Messinger, 2002; Van Den Berg & Crisp, 2004). If social work is to improve its capacity to support LGBT people, there remains a need to better understand these factors within social work education, and further examine how schools of social work function as mechanisms through which professionals develop LGBT-competence. Doing so will require research capable of simultaneously exploring the relationship between individual and organizational levels of LGBT-competence, and that gathers data inclusive of many perspectives of social work educational environments.

The proposed study is intended to meet this need by utilizing a design sensitive to the complex nature of cultural competence development within an organizational context, and gathering data from a sample of social work program directors, faculty, and students within the same social work programs. To do so this study applies the Multidimensional Cultural Competence (MDCC) model (Sue, 2001) as its theoretical framework. This model suggests understanding cultural competence requires attention to culture-specific factors (e.g., LGBT), individual and organizational-levels of analysis, and key components of cultural competence (knowledge, attitudes, skills). Using this framework as a guide, this study will explore factors related to LGBT-competent education in both the explicit (course content) and implicit (learning environment) social work curriculum by asking social work program directors, faculty, and students to evaluate the organizational LGBT-competence of their programs. Student participants will also be asked to evaluate their self-perceived individual LGBT-competence. Through this evaluation of organizational and individual-level LGBT-competence within social work education this study intends to simultaneously accomplish two goals: to provide (1) a comparison between faculty and student responses to control for respondent bias and examine

within-program congruence of perspectives; and (2) an assessment of the relationship between the organizational LGBT-competence of social work programs and the individual LGBT-competence of students within these programs. The purpose of this research is to provide new and valuable insight into support of LGBT-issues within schools of social work. It is hoped the results of this study will elucidate how improving LGBT-competence in social work education can ultimately increase social work's capacity to combat social inequality and oppression through producing professionals more capable of responding effectively to the needs of sexual and gender minority clients.

B.   <u>Research Questions & Hypotheses</u>

This study will explore LGBT-competence within social work education by posing three primary research questions: (Q1) do perceptions of organizational LGBT-competence differ between faculty and students, after controlling for organizational and individual-level contexts; (Q2) is organizational LGBT-competence of a social work program associated with individual sexual minority competence (LGB-competence) of students within that program; and (Q3) is organizational LGBT-competence of a social work program associated with individual gender minority competence (transgender-competence) of students within that program?

Three hypotheses are proposed: (H1) Differences exist between faculty and student perception of organizational LGBT-competence and, after controlling for organizational and individual-level contexts, faculty perceptions of their organization's LGBT-competence will be higher than student perceptions; (H2) organizational LGBT-competence is associated with individual LGB-competence of students within a given program, such that a program with higher levels of organizational LGBT-competence will also have students with higher self-perceived competence with sexual minorities; and (H3) organizational LGBT-competence is associated

with individual transgender-competence of students within a given program, such that a program with higher levels of organizational LGBT-competence will have students with higher self-perceived competence with gender minorities.

The research questions and hypotheses of this study were derived through applying a modified version of Sue's (2001) model of Multidimensional Cultural Competence (MDCC) (Figure 1) to the relationship between social work education and LGBT-competence development. This model suggests organizational-level factors have the potential to influence development of individual cultural competence. Furthermore, cultural competence is a multidimensional construct best understood by examining (1) culture-specific factors, (2) specific components of cultural competence, and (3) analysis across multiple levels of foci.

As it applies to the current study, this approach suggests evaluating the LGBT-competence of social work education will require: (1) an exploration of LGBT-specific content/attention in social work curricula; (2) assessment of attitudes, knowledge, and skills related to LGBT issues; and (3) attention to societal, professional, organizational, and individual factors that may significantly influence LGBT-competence within a social work program. This particular model of cultural competence was chosen as the guiding conceptual framework of the proposed study because its unique design overcomes limitations of other frequently used models of cultural competence that are not designed to be culture-specific, or are insufficient for addressing multidimensional factors of cultural competence within complex organizational environments such as schools (Sue, 2001; Van Den Berg & Crisp, 2004). It is important to note why application of cultural competence was chosen over related concepts like cultural sensitivity, or cultural awareness. This is because cultural competence specifically involves the integration and transformation of knowledge of culture and diversity into specific standards,

Figure 1. The Multidimensional Model of Cultural Competence (Sue, 2001)

Dimension 1:

Culture-specific Attributes

Latino

Black

Elderly

LGBT

Societal

Dimension 3: Level of Foci

Professional

Organizational

Individual

Attitudes   Knowledge   Skills

Dimension 2: Components of Cultural Competence
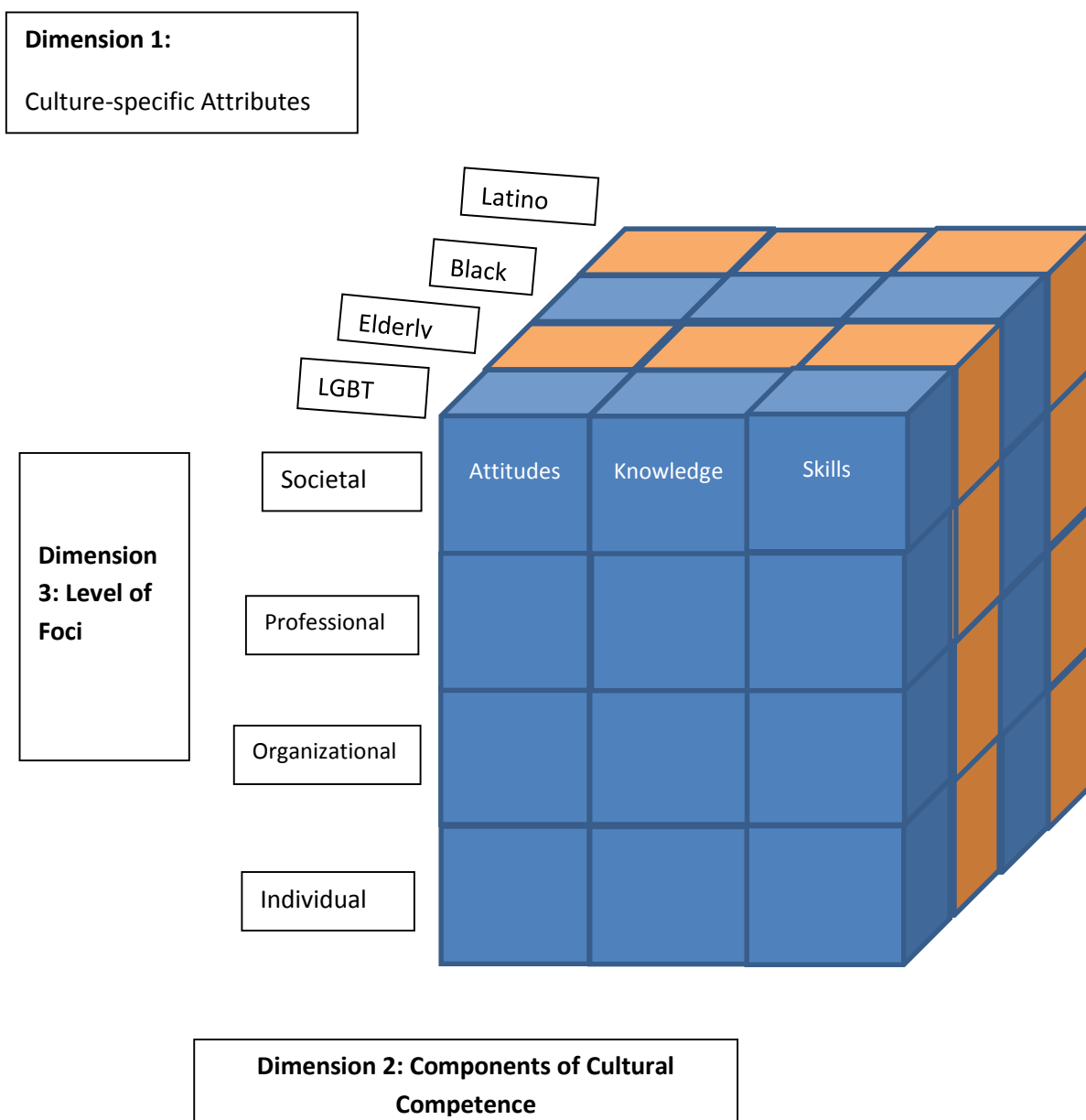
policies, and practices used to increase the quality of services provided to diverse cultural groups (Cross, Bazron, Dennis, & Isaacs, 1989). Thus cultural competence goes beyond concepts of cultural sensitivity or cultural awareness to emphasize the idea of professionals who can effectively operate in different cultural settings. The development and dimensions of the MDCC are provided in greater depth below, following a discussion of the evolution of concepts of cultural competence and their application within helping professions.

C.   **Theoretical Framework**

   1.   **Cultural Competence**

   Conceptualizing cultural competence. Concepts of cultural competence began following growing recognition of the vital role culture plays in the activities and purposes of helping professions, and concerns that psychology and counseling professionals were not prepared to work effectively within the demographic realities of an increasingly multicultural and diverse population in the United States (Kohli, Huber, & Faul, 2010; Van Den Berg & Crisp, 2004). This concern revealed a need to delineate professional standards of effective practice with diverse social groups, and to clarify characteristics of culturally skilled professionals. Efforts to meet these needs began to highlight conceptual ideas of the vital role culture plays in the activities and purposes of helping professions. Development of such concepts within psychology and counseling contexts became the foundation for current theoretical understanding of what constitutes culturally competent practice.

   Conceptual definitions & process of cultural competence. Explorations of cultural competence in professions such as psychology, counseling, educational psychology, social work, and nursing have resulted in hundreds of definitions of cultural competence and frameworks for culturally competent practice. As such, there remains a lack of consensus on an exact definition

of such competence or how it is to be developed across disciplines (Boyle & Springer, 2001).

Most applications of cultural competence, however, are derived from the Sue et al. (1982)

framework that delineates three key characteristics of culturally competent practice. This widely

applied model conceptually defines cultural competence as a process involving a professionals'

development of: (1) awareness of their own cultural values, biases, and position in established

power structures, and the impact of theses on relationships with clients; (2) awareness of a

client's world view; and (3) ability to develop and implement culturally appropriate

interventions. Within this process, it is important an individual is open to the idea of ongoing

discovery through inductive learning, because, as Lum (1999) states, "becoming culturally

skilled is an active process…a process that never reaches an end point. Implicit is the

recognition of the complexity and diversity of the client and client populations and

acknowledgement of our own personal limitations and the need to always improve" (Sue & Sue,

1990, p. 166). Efforts to describe this process of development have for decades suggested

individual cultural competence can be located along a continuum ranging from cultural

destructiveness to cultural proficiency. While some authors have described this continuum with

six distinct stages (Cross, 1988; Manoleas, 1994), and others describe three stages (Sue, 2001),

the general point remains that cultural competence can be conceptually described as an on-going

process that, at its worst, is represented by attitudes or actions that actively destroy or resist

support for cultural difference, and at its best is characterized by a person that not only actively

includes and values cultural difference but also regularly seeks to improve these abilities.

  Attitudes, knowledge, and skills. Defining cultural competence as an on-going process

of developing self-awareness, client understanding, and implementing appropriate interventions

exposes a need to identify specific attributes that facilitate development across this continuum

(Arredondo, et al., 1996; Boyle, 2001; Sodowsky, Gargi, & Taffe, 1994; Sue, 1982). Efforts to

address this need, such as Sue, Arredondo, and McDavis' (1992) identification of 31 specific

attributes of culturally skilled professionals, often focus on a trilogy of components: (1) attitudes,

(2) knowledge, and (3) skills. Each of these is believed to be interlinked with the three

dimensions of the broad conceptual definition of cultural competent practice described above,

and integral to developing cultural competence in work with diverse populations. Attention to

attitudes (beliefs, values, and attitudes) facilitates self-awareness of one's own cultural roots,

biases held towards 'others', and comfort with and sensitivity to cultural difference. Knowledge

refers to acquisition of information regarding values, beliefs, and norms of specific cultural

groups, how sociocultural dynamics might impact specific cultural groups differently, and an

awareness of how such differences may contribute to social inequalities experienced by clients of

helping professions. The skills component invloves how to develop the ability to receive and

send a wide variety of verbal and nonverbal messages to and from diverse cultural groups, and

how to apply this ability to implement culturally sensitive interventions (Lum, 1999; Sue et al.,

1992; Van Den Berg & Crisp, 2004). These components are understood to be distinct, but not

mutually exclusive factors. As Sodowsky et al. (1994) explain, "Awareness, which is experience

based, perhaps affects both knowledge and skills but can be separate from both because it

implies both an attitudinal emotional component and insightfulness. Knowledge and skills that

are more declarative in nature could overlap" (p.138).

Since the 1980s this conceptualization of attitudes, knowledge, and skills has been

applied with increasing frequency within helping professions. The importance of these factors

to understanding of cultural competence cannot be understated, as they play a foundational role

in most interventions and instruments intended to improve or measure cultural competence

(Boyle, 2001; Kohli, 2010; Sue, 2001), and serves as the core of professional standards of practice and commitments to cultural competence in fields of psychology, counseling, and social work (American Counseling Association, 2005; American Psychological Association, 2002; National Association of Social Workers, 2010). Also, due to research suggesting those with higher levels of education (Ponterotto et al., 1991), or those more recently educated (Pope-Davis, Prieto, Whitaker, & Pope-Davis, 1993) tend to score higher on measures of cultural competence, attention to the trilogy of attitudes, knowledge, and skills within professional education has been increasingly explored as a means to improve cultural competence within helping professions (Bidell, 2005).

       Limitations of cultural competence frameworks. Due to the particular purposes and design of this proposal, there are two primary limitations to traditional frameworks of cultural competence that are important to address. The first concerns the tension between multi-cultural and culture-specific models for developing cultural competencies. This tension centers around the ongoing debate about whether it is more practical or beneficial for practitioners to develop a general set of cultural competencies that can be universally applied, or to instead emphasize the importance of cultural differences and a need to develop culture-specific attributes of competence (Kohli, Huber, & Faul, 2010) . This debate is particularly relevant to the purposes of this study, and its culture-specific focus on LGBT-competence in social work education. Many conceptualizations of cultural competence emphasize dimensions of competent practice that can be applied across multiple cultures (see Ponterotto, Gretchen, Utsey, Rieger, & Austin, 2002; Sodowsky et al., 1994). This multicultural approach supports the idea that some attributes of cultural competence, such as awareness of self, or empathy, can be applied universally. However, there is growing acknowledgment that prejudices, biases, and inequalities are

experienced uniquely by different cultural groups (Israel & Selvidge, 2003; Kocarek & Pelling, 2003). This suggests that attitudes, knowledge, and skills necessary to work effectively with LGBT groups, for example, can be significantly different from those needed to support ethnic minorities. While it is important to note that different cultural groups/identities are not always mutually exclusive (discussed in greater detail below), such conclusions bring into question the generalizability, validity, and appropriateness of utilizing popular measures of cultural competence that are multicultural in nature, such as the Multicultural Counseling Inventory [MCI] (Sodowsky et al.,1994), the Multicultural Counseling Knowledge and Awareness Scale [MCKAS] (Ponterotto et al., 2002), or the Counselor Self Efficacy Scale [CSES] (Melchert, Hays, Wiljansesn, & Kolocek, 1996), when evaluating competent practice with specific cultural groups. Interestingly, when cultural competence research, theory, and instrumentation have taken a culture-specific approach, it is usually within the context of ethnic/racial minorities (see Devore & Schlesinger, 1999; Lum, 2000). As Sue (2001) argues, though this emphasis on ethnic/racial minorities has been instrumental in developing understanding of the unique needs of specific cultural groups, there remains a need to broaden models and measures of culture-specific cultural competence to include attention to less-explored cultural groups such as the elderly or sexual minorities.

A second limitation concerns the imbalance between attention given to individual-level analysis (micro) and the comparatively underdeveloped understanding of organizational-level (messo) analysis. This issue is particularly relevant because the current study will evaluate LGBT-competence within an organizational environment (schools of social work). Though there is some information on developing organizational-level cultural competence within contexts such as business or industry (Sue, Parham, & Bonilla-Santiago, 1998), healthcare (Betancourt,

Green, Carrillo, & Ananeh-Firempong, 2003), and higher education (Siegel, 2006), the history of conceptualizing cultural competence is characterized by overwhelming emphasis on individual competency development (Boyle & Springer, 2001; Kohli et al., 2010; Sue, 2001). Such emphasis is reflected in the fact that nearly every instrument measuring cultural competence (including all instruments mentioned above) addresses individual-level analysis, and the few existing frameworks for measuring cultural competence at an organizational level vary significantly and have not been assesed for reliability and validity (Betancourt et al., 2003; Siegel, 2006). This lack of attention to messo-level analysis has not gone unnoticed. Professionals in fields such as public health, business, psychology, nursing, and social work are increasingly calling for a broadened theoretical understanding of cultural competence that includes attention to organizational factors (see Bassett, Conron, Landers, & Auerbach, 2002; Clingerman, 2011; Connerley, 2005; Sue, 2001; Van Den Berg & Crisp, 2004). Developments in this domain argue that, as with individuals, developing cultural competence in institutions is a process assessable across a continuum from cultural destructiveness to cultural proficiency (Sue & Sue, 1999) or by classifying an organization into one of three types; monocultural, nondiscriminatory, or multicultural (Adler, 1986; D'Andrea, Daniels, & Heck, 1991; Sue, 2001). Research acknowledging this conceptualization has begun to evaluate organizational factors believed to be related to moving an institution towards greater cultural competence such as organizational policies, resources, culture, and employee training efforts, (Martin et al., 2009; Sue & Sue, 1999). Further attention to such aspects of cultural competence is necessary in order to refine constructs of messo-level cultural competence, and develop greater ability to operationalize these constructs.

2. **<u>Multidimensional Cultural Competence</u>**

To frame its exploration of LGBT-competence in social work education, this study

applies the Multidimensional Cultural Competence Model (MDCC) (Sue, 2001). This

conceptual framework was chosen because it is specifically developed to address the limitations

of other frequently used models of cultural competence by providing a design simultaneously

sensitive to micro and messo levels of analysis and culture-specific factors of cultural

competence. The MDCC achieves this by proposing a model of cultural competence with three

primary dimensions: (a) culture-specific attributes, (b) components of cultural competence, and

(c) foci of cultural competence. This 3x4x4 model (Figure 1) allows for identification of cultural

competence in a number of combinations through systematic examination of where these three

dimensions intersect. Although specifically developed within the field of counseling

psychology, the dimensions of the MDCC described below have been adapted slightly for

general application in helping professions.

Dimension 1: Culture specific attributes of cultural competence. The first dimension

of the MDCC is based on the premise that race, ethnicity, and culture are powerful variables

impacting how people think, make decisions, behave, and define events (Sue, 2001). While this

model recognizes the particular significance of race/ethnicity in cultural competence, it is

designed to allow for flexible application to any number of culture-specific identities. The

purpose of this facet of the MDCC is to emphasize the importance of group-level factors in

identity formation and cultural understanding. In so doing it intends to call attention to cultural

groups often excluded from discussions of cultural competence for sociopolitical or normative

reasons. Sue specifically mentions the potential of applying the MDCC to explorations of social

class, gender, or sexual minorities; groups historically underemphasized in cultural competence

theory and research because of hesitancy to explore identities that may reveal continued

oppression and unpleasant personal biases (Sue, 2001).

This culture-specific approach of the MDCC suggests enhancing professional cultural

competence requires an understanding of the complexities of personal identity formation, and

how this relates to cultural group identity. Sue (2001) suggests the usefulness of a triparate

model (Figure 2) in identifying universal level (universal human features), group level (shared

cultural values/beliefs with particular reference groups), and individual level (uniqueness unlike

any other) factors of personal identity formation. As this model demonstrates, individuals may

belong to more than one cultural group (e.g., race, sexual orientation, and gender) and some

group identities may be more salient than others. The salience of group identity is permeable

and may shift depending on context. For example, a person who identifies as both disabled and

gay might identify more as disabled when around the able bodied, or as gay when among the

disabled. The first dimension of the MDCC accounts for this complexity by recognizing all three

levels of personal identity, and the potential for multiple forces to be active within any level of a

persons' identity.

With this intersectionality of identity in mind, it is important to state that while this

proposal focuses on LGBT-cultural competence, it is recognized that many LGBT individuals

may also identify with other minority or oppressed groups, and this complex identity dynamic

can influence the success of helping professionals such as social workers. For example, the

activities of social workers in the U.S. have often been predominated by monocultural Euro-

American perspectives characteristic of mainstream society (Kohli, Huber, & Faul, 2010;

Aponte, 1995). Sue (2001) argues that minority groups may perceive the competence of helping

Figure 2. Triparate framework of personal identity

Universal Level:

Homo Sapiens

Group Level:

Similarities and Differences

Gender

Culture

Ability to use symbols

Race/Eth

Age

Individual Level:
Uniqueness

- Genetics

Geographic
Location

- Nonshared
experineces

Biological/physical similarities

Sexual
Orientation

Marital
Status

Religion

Disability

Self-awareness
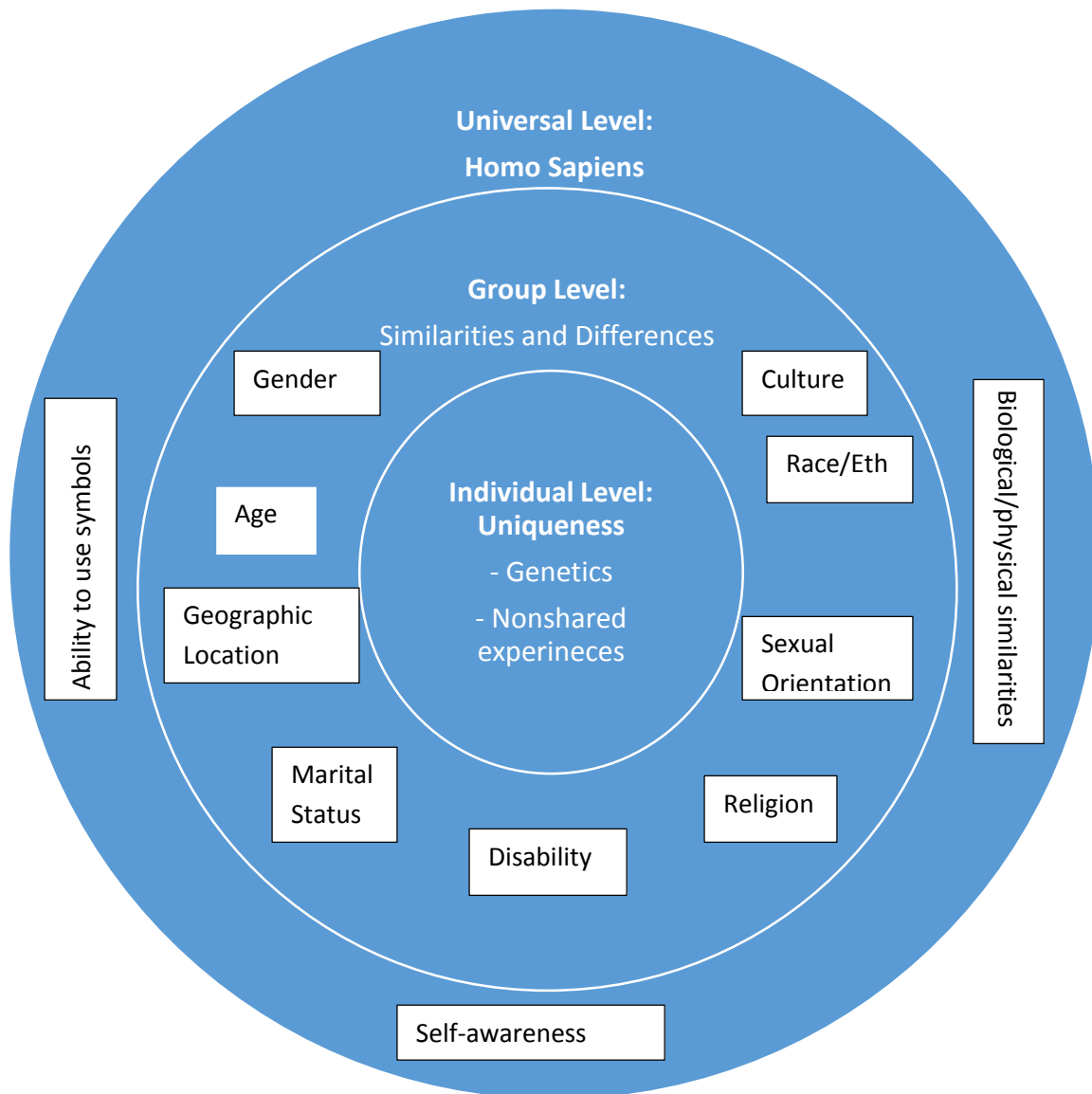
Source: Sue (2001)

professionals differently than mainstream client groups, and therefore minority clients may see a clinician who exhibits skills associated with mainstream perspectives as having lower credibility. Different minority groups may also define cultural competence differently from one another. This suggests that sexual minorities, for example, may not only perceive cultural competence differently than mainstream society, but also may define cultural competence differently than other minority groups such as African American or elderly populations.

These two points suggest just how important it is for a helping professional to understand and accept that their clients may define culturally competent practice differently from professionals, or each other. The effectiveness of such professionals depends on being perceived as a credible expert by their clients, which in turn depends on the professionals' flexibility to meet the needs and expectations of diverse client groups. If a professional and client differ on how they understand cultural competence, and the professional is incapable of providing what the client perceives as culturally competent practice, their expertise may be judged as not credible, and the effectiveness of the intervention may be at risk. Developing culture-specific understanding of identity formation and how culture relates to facilitating a professional helping relationship can help prevent against this risk. Because client perception of cultural competence may vary between different cultural groups, helping professionals need to recognize numerous and intersectional identities and cultures of their clients, and develop appropriate culture-specific understandings of competence necessary to be perceived as professionally credible. Therefore, the first dimension of the MDCC suggests developing an understanding of complex identity formation and culture-specific aspects of cultural competence are pivotal aspect of supporting effective practice with diverse minority client groups.

Dimension 2: Components of cultural competence. The second dimension of the MDCC focuses on attitudes, knowledge, and skills, the three components identified in earlier work (Sue et al., 1982; Sue et al., 1992) as key domains for identifying, developing, and measuring specific competencies indicative of a culturally skilled professional. In the MDCC framework, the attitude component refers to developing one's capacity for cultural self-awareness. The knowledge component refers to gathering of new information to improve one's awareness, attitudes, and values related to service provision. Development of skill competencies refers to one's ability to build on and apply attitudes and knowledge to the planning, implementation, and evaluation of interventions with culturally diverse populations.

To enhance understanding of the role this trilogy of components play in competence development, this dimension of the MDCC also provides two assertions to clarify the purpose and desired outcome of cultural competence development. First, it states the purpose of cultural competence is to facilitate the provision of relevant treatment to all populations, and that this end is desirable. And second, it suggests the desired outcome of cultural competence is to professionally support the pursuit of social justice by providing equal access and opportunity, being inclusive, and removing individual and systemic barriers to service provision. Therefore, following this model, a helping professional's acquisition of specific attitudes, knowledge, and skills are determinants of providing relevant interventions and realizing the objective of socially equitable service provision.

Dimension 3: Foci of cultural competence. This dimension of the MDCC deals with cultural competence at both a person/individual and organizational/system level of analysis. As discussed above, most work on cultural competence focuses on micro level efforts of assessing or developing attitudes, knowledge, or skills in an individual. Far less emphasis is placed on

exploring higher-level factors, such as professional culture, organizational structures, and societal norms which influence cultural competence development (Lewis, 1998; D.W. Sue, 1991). It is argued that because such factors can shape, impede, or reinforce the behavior of an individual, training an individual to become more culturally competent may do little good if the profession/organization/society within which the person works is mono-cultural or hostile towards application of culturally competent practice (LaSala, 2008; Petersen, 2002). Therefore, it is important to expand the scope of cultural competence analysis to include four foci: individual, professional, organizational, and societal levels. This approach allows for foci-specific identification of barriers to developing cultural competence. Sue (2001) differentiates such barriers by level of foci, suggesting that obstacles at the individual level are biases, misinformation, and prejudices, which often manifest as discrimination. Barriers at the professional level include cultural-bound definitions and ethnocentric standards. At the organizational level, obstacles include mono-cultural policies, practices, and structures. Barriers at the societal level include the invisibility of ethnocentric mono-culturalism, the power to define reality, and a biased interpretation of history.

Individual/personal level. Based on the assumption that no one was born into society with the desire or intention to be biased, prejudiced, or bigoted, a foundational idea of the MDCC is that fear/hatred of others is learned through social conditioning, and it is often expressed unintentionally or at an unconscious level (Dovidio & Gaertner, 1999). Moving from these biases/prejudices towards greater personal cultural competence is often challenging because most individuals perceive themselves as just, moral, and decent, and therefore find it difficult to acknowledge personal biases. Acknowledging such personal bias requires discussing unpleasant realities (i.e., prejudice, discrimination, inequality), accepting responsibility for

actions/inactions that perpetuate such realities, and involves addressing unpleasant emotions such as fear, guilt, or anger. Most people avoid such unpleasant situations or facing the reality of their fears, which makes development of personal cultural competence a difficult process. This is particularly true regarding persistent oppression experienced by sexual minorities (Sue, 2001). To overcome such barriers to cultural competence a person must be willing to confront biased conditioning that has occurred throughout their lifetime (Ponterotto & Pedersen, 1993). Once willingness is reached, Sue (2001) suggests improving individual cultural competence is best achieved through exposure to people from different cultural groups, seeking cultural information from many different sources, and continual self-reflection and questioning of personal beliefs.

Professional level. Sue (2001) suggests that professions exhibit values rooted in the cultural history of a given profession's development. As a result, many helping professions in the United States, such as psychology, counseling, and social work have been criticized as culture-bound in that they arise from a predominantly Euro/Amero-centric perspective (Kohli, Huber, & Faul, 2010; Marsella, 1998; Sue, 2001). The predominance of a Euro-American approach brings into question the applicability and viability of such professions with minority populations that do not have the same cultural background. Indeed, such ethnocentrism has historically led many professions to approach work with minority populations in a way that not only assumes the superiority of the dominant population, but perpetuates oppression of minority groups. Such professional judgments of what is deemed 'normal' or 'abnormal' are becoming increasingly incongruent with the cultural beliefs of a U.S. population ever increasing in diversity. Therefore, Sue (2001) argues that although realizing professional cultural competence in helping professions is possible, it will require a reevaluation of professional definitions, and adoption of standards and ethics of practice that are multicultural in scope.

Organizational level. The organizational level of analysis in the MDCC is based on the concept that organizations are like individuals in that they vary in their capacity to address issues related to culture, and understanding this capacity is crucial to improving cultural competence within helping professions. To help understand this variance the MDCC provides a 3-category continuum of lesser-to-greater organizational cultural competence from (1) mono-cultural organizations, to (2) nondiscriminatory organizations, to (3) multicultural organizations. As Sue (2001) states, "if we are to truly value multiculturalism, then our organizations…and even our professional associations must move toward cultural competence in how they treat clients, students, and workers" (p.806). This aim is seen as desirable because culturally competent organizations are better equipped to avoid many conflicts and misunderstandings characteristic of mono-cultural institutions (Thomas, 1990), are more capable of offering cultural relevant services to diverse clientele, and are more supportive of culturally competent practices of employees (Lewis et al., 1998). The purpose of this level of analysis is to expose power relations at an organizational level that may contribute to structural discrimination or the perpetuation of mono-cultural practices. It encourages a critical examination of organizational policies, practices, and subsystems, the ease of access to organizational services, and expanding evaluation of organizational services beyond individual-level efforts to include attention to systems-level factors.

Societal level. This level of the MDCC addresses ways in which society in general contributes to social inequalities and marginalization or oppression of minority groups. It calls attention to prevalent and persistent social challenges in the United States related to bigotry, ethnocentrism, historical inequality between minority/majority groups, and the hesitancy of Americans to engage in dialogue around issues of race/ethnicity or culture. The MDCC

identifies three major barriers to attaining societal cultural competence: (1) a strong belief in the superiority of one's own cultural heritage; (2) the power to define reality from a singular perspective (the dominant population perspective); and (3) a biased historical legacy that glorifies the contributions of one group over another (Sue, 2001).

Applying the MDCC to this proposal. For the purpose of this study, the MDCC serves as a conceptual blueprint to frame exploration of LGBT-competence in social work education. This application can be understood as cross-section of Sue's (2001) complete MDCC model (Figure 3).

First, following Dimension 1, this study focuses on the culture–specific attributes of LGBT-competence within social work education. It is recognized that gender minorities are a particularly understudied group and increasingly recognized as significantly different from sexual minorities (Carrol & Gilroy, 2002). This suggests that the "T" (transgender) of the LGBT acronym is deserving of its own attention and research. Rather than focusing on either gender minorities or sexual minorities, however, this proposal includes attention to both gender and sexual minorities, and attempts to simultaneously acknowledge the uniqueness of transgender and LGB experiences and provide specific means of addressing transgender-specific and LGB-specific competence (described in greater detail in the methods section). This approach is intended to account for the unique and important experiences of LGBT group-level identities within social work education, and address the historical lack of attention to sexual and gender minorities in explorations of cultural competence.

Second, Dimension 2 suggests measurement of LGBT-competence should attend to the three previously discussed components of cultural competence: attitudes, knowledge, and skills. This study will do so at an individual level, through direct measurement of these components in

Figure 3. Modified version of the MDCC to assess LGBT-competence

Dimension 1:

LGBT-Competence

Societal

Professional

**Dimension 3:
Level of Foci**

Organizational

Individual

Attitudes

Knowledge

Skills

Dimension 2: Components of Cultural Competence
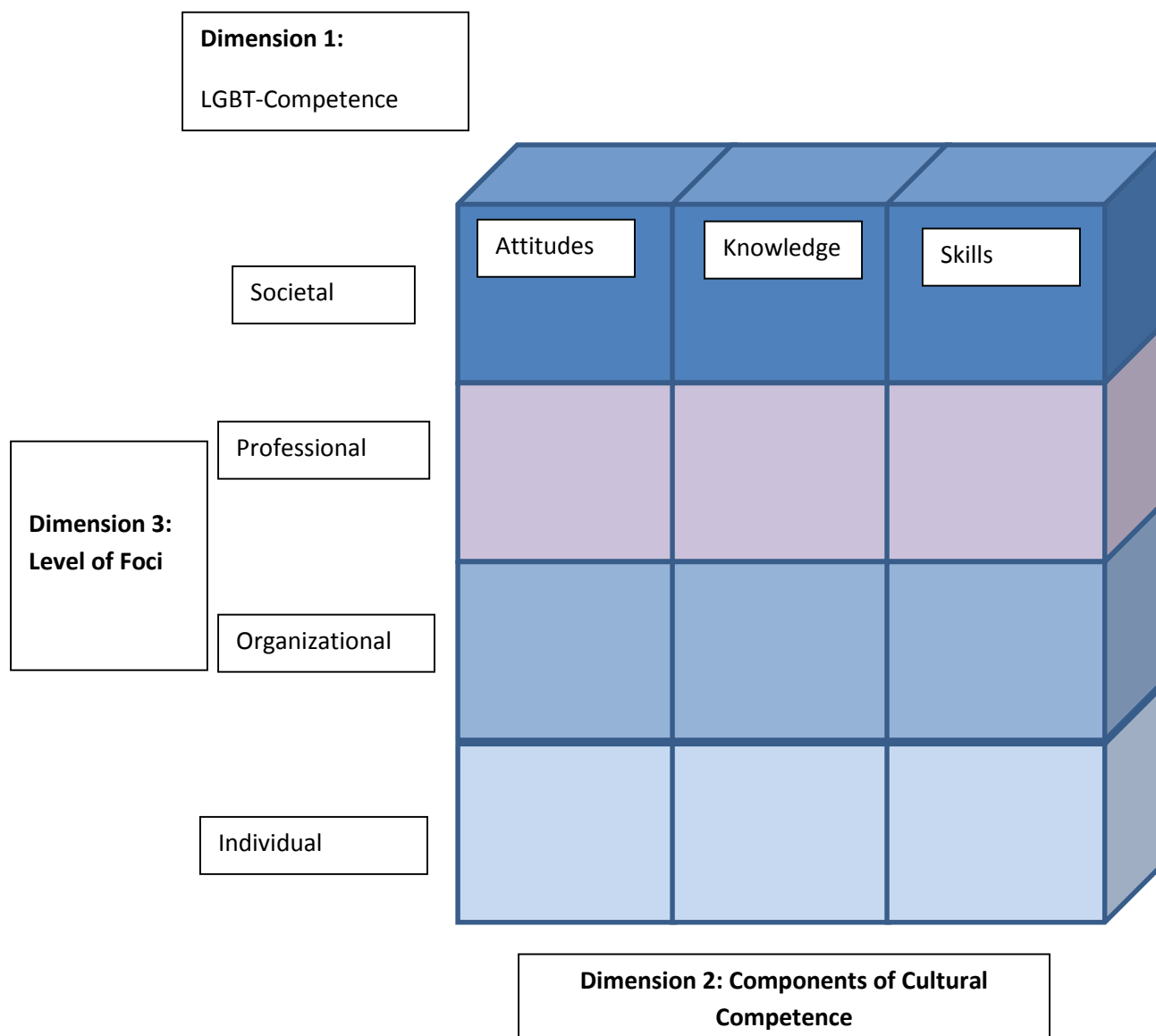
social work program students. And finally, Dimension 3 encourages a broadened scope that includes analysis of LGBT-competence across multiple levels of foci. This proposal does so in two ways: (1) it provides context for the current study through a literature review that examines barriers to LGBT-competence in social work education across individual, professional, organizational, and societal levels of foci; and (2) it empirically assesses organizational-level and individual-level measures of LGBT-competence in social work education.   Doing so will allow for exploration of the assertion that rules, regulations, policies, practices, and structures of an organization influence the development of individual cultural competence ([Q2; Q3] Sue, 2001).

CHAPTER II — LITERATURE REVIEW

To provide context for the concepts, variables, and methodology of this proposal it is important to review three bodies of literature related to LGBT-competence in social work education: (1) conceptual development of cultural competence within social work; (2) LGBT-specific competence in social work; and (3) barriers to LGBT-competence in social work education. Examining the literature on these related topics helps develop an understanding of what is known, how it came to be known, and what remains to be explored, about LGBT-competence in social work education. Research in these domains is integral to this study because it helps frame how variables within this research have been conceptualized and measured over time.

A.   **Cultural Competence in Social Work**

      1. Conceptualizing Cultural Competence

Whether referred to as diversity, multiculturalism, or cultural competency, attention to social work's capacity to be effective with minority groups is relatively new in social work. Historically, diversity content in social work education has only recently become an important issue, and social work practice has traditionally focused on individual-level interventions with comparatively little attention to social justice or minority-specific issues (Aponte, 1995; Schmitz, Stakeman, & Sisneros, 2001). Lum's (2000) meta-analysis of three major social work journals from 1970-1997 demonstrates this under-emphasis on diversity, finding that only 8% of articles in these journals discussed issues related to human diversity. Some authors argue this level of attention is low for the time period, given that academicians have been stressing the need to include multicultural issues in social work education since the 1960s, and paradigms of social

work have increasingly sought to understand diversity (Kohli, Huber, & Faul, 2010; Van Soest, 1995).

Authors have described concern for diversity issues in social work as evolving professional paradigms, from assimilationist models (1950s), to Minority/Dual perspectives (1960s-1970s), to multiculturalism (1980s – mid 1990s), to Ethnocultural frameworks (late 1990s-2000s), that increasingly value, affirm, and respect diversity within social work practice (for detailed description of these paradigms see Kohli, Huber & Faul, 2010; Van Den Berg & Crisp, 2004). However, even with the emergence of inclusive professional paradigms in recent decades, training of social work students on diversity issues has been criticized since the 1990s as inadequate, with authors claiming that social work services and education remained embedded in methods that were largely mono-cultural and insensitive to the needs of diverse cultural populations (Aponte, 1995; Gould, 1995). More recent literature echoes the persistence of this problem as it pertains to sexual and gender minorities, claiming that social work programs often remain hostile environments for LGB students and faculty (Dentato et al., 2013; Messinger, 2002), and are particularly limited with regards to addressing transgender issues (Martin et al., 2009). LaSala et al. (2008), for example, describes how faculty or researchers who identify as a sexual minority, as well as heterosexual academicians with interests in these populations, often face homophobia, heterosexism, and hostility within their programs. Relatedly, Fredriksen-Goldsen et al. (2011) found that schools of social work remain less concerned about transgender issues and have less transgender-specific resources. These results suggest a persistent need to improve social work with diverse groups, specifically sexual and gender minorities. The emphasis on cultural competence characteristic of modern social work is the latest iteration of

professional approaches to addressing these issues, and developing practitioner ability to work effectively with diverse populations.

Cultural competence in social work began to be conceptualized following its foundational development in psychology and counseling; the term has been more commonly used since the late 1990s when discussing social work with diverse groups (Fong & Furoto, 2001; Gross, 2000; Lum, 1999). Development of concepts of cultural competence in social work often focuses on the traditional components of attitudes, knowledge, and skills, and draws from broad theoretical frameworks including ecological, structural, problem-solving, and institutional change models (Boyle & Springer, 2001). Despite these various theoretical influences there are common purposes and assumptions shared across applications of cultural competence that shed light on how such concepts are understood within social work. First, applications of cultural competence address: (1) how ethnicity/class/oppression contribute to group identity, coping, and problems encountered by minorities; (2) how group factors interact with individual development; (3) and how inequity is upheld in social services systems (Boyle & Springer, 2001). Second, frameworks used to apply cultural competence share four basic assumptions: (1) reality is socially constructed; (2) diverse worldviews need to be appreciated; (3) multiple realities affect individual personalities; and (4) diversity education has a positive impact on the journey to cultural competence (Kohli et al., 2010). Taken together, these purposes and assumptions of concepts of cultural competence affirm the value of diversity, recognition of social oppression, the strengths of the client, the importance of social context, and the need for practitioners to both critically assess their own values and beliefs as well as work towards the amelioration of inequity experienced by clients. These themes not only share key elements with predominant approaches to modern social work practice including generalist, ecological, empowerment/strengths, and

social justice frameworks, but they also are consistent with modern social work ethics and commitments to social justice and diversity.

2. __Professional Commitments to Cultural Competence__

The emergence of the concept of cultural competence in social work is mirrored in policies and standards of major social work professional organizations such as the National Association of Social Work (NASW) and the Council for Social Work Education (CSWE). NASW is the largest membership organization of social work professionals, and works to enhance professional growth and development of social workers by creating and maintaining professional standards of ethics and practice, and advancing sound social policies (NASW, 2012). CSWE is an organization consisting of a partnership of education and professional institutions, social welfare agencies, and private citizens, and it is the sole accrediting agency for social work education in the United States (CSWE, 2012).

Beginning in the 1970s CSWE began to promote inclusion of some curriculum content on minority groups such as ethnic/racial and gender minorities. Diversity content in social work education, however, has only been mandated by this accreditation body since 1992 (Garcia & Van Soest, 1997). Similarly, though NASW produced ratified codes of social work ethics in 1960, 1972, 1990, and 1993, all of which decried discrimination and oppression of minority groups, it was not until 1996 that the social work code of ethics included statements regarding practitioner competence with cultural or social diversity (Reamer, 2009).

Recent developments in these professional organizations signal an increased awareness of diversity issues and application of cultural competence concepts in social work. The NASW (2001) publication of "Standards for Cultural Competence in Social Work Practice" is one example of how this professional organization is increasing application of such concepts. This

document provides professional definitions of *culture, competence,* and *cultural competence*, and delineates 10 standards of cultural competence related to ethics/values, self-awareness, cross-cultural knowledge, cross-cultural skills, service delivery, empowerment/advocacy, diverse workforces, professional education, language diversity, and cross-cultural leadership (NASW, 2001). The 2008 revision of the NASW code of ethics to specifically include a "Cultural Competence & Social Diversity" statement further demonstrates the professional commitment to concepts of cultural competence in social work (NASW, 2008, 1.05).

3. Educational Commitments to Cultural Competence

CSWE's adoption of a competency-based approach to its educational policy and accreditation standards (EPAS) also highlights increased application of concepts of cultural competence in social work. Designed as a means of guiding and measuring academic competency, these standards are used to accredit baccalaureate and master's-level social work programs, and to provide educational policies and standards that define and require particular professional competencies be facilitated through social work education (CSWE, 2008). Given this study's purpose of examining LGBT-competence in social work education, understanding how social work education is designed to develop professional competence is of particular importance.

The curriculum components addressed by the EPAS are divided into two domains: (1) the explicit curriculum, which addresses aspects of course content and field placements; and (2) the implicit curriculum, which addresses the social work learning environment. Through mastery of 10 core competencies and associated practice behaviors, the explicit curriculum is intended to prepare BSW graduates for generalist practice and MSW graduates for advanced practice augmented by knowledge and practice behaviors specific to a concentration (CSWE, 2008).

Many components of these competencies and behaviors relate to concepts of cultural competence. For example, the core competencies and practice behaviors of the EPAS are comprised of specific measureable values/attitudes, knowledge, and skills; the traditional cultural competence components. Also, the EPAS explicit curriculum highlights the need for; personal reflection and self-correction to assure continual professional development (EPAS 2.1.1), engagement with and understanding of diversity in practice (EPAS 2.1.4), and the assertion of human rights for all people (EPAS 2.1.5) (CSWE, 2008). These standards are meant to guide integration and application of social work ideals into classroom and field education, and to serve as educational guidelines for delineating expectations of social work education (CSWE, 2008). To earn accreditation, social work programs must demonstrate efforts to adhere to these expectations. Applying such competencies to diversity or multicultural issues is intended to produce professionals with greater ability to: critically reflect on the role culture plays in their personal perspectives and professional practice; feel comfortable or efficacious when working with issues related to culturally diverse groups; and recognize and affirm the value and rights of cultural minority clients in the face of social discrimination.

Conceptually understood as an extension of the explicit curriculum, the implicit curriculum of social work education is composed of a program's: commitment to diversity; admissions policies and procedures; advisement, retention, and termination policies; student participation in governance; faculty; administrative structure; and resources (CSWE, 2008). Programs seeking accreditation are expected to demonstrate how attention to these factors creates an educational environment in line with social work values and purposes. The EPAS for the implicit curriculum emphasize the importance of diversity issues within the learning environment, reflecting growing professional concern for cultural competence in social work.

For example, EPAS 3.1 is dedicated entirely to support for diversity in the learning environment, and requires: evidence of specific and continuous efforts to foster an environment of diversity and the respect for and understanding of all persons, regardless of difference (3.1.1); description of how the learning environment models affirmation and respect for diversity and difference (3.1.2); and discussion of specific plans to improve the learning environment to affirm and support persons with diverse identities. Other implicit curriculum policies related to creating a culturally competent learning environment include requirements for faculty to model behaviors and values expected of professional social workers through their teaching, scholarship, and interactions with students and coworkers (EPAS 3.3); for social work programs as a whole to provide adequate resources (EPAS 3.5) and administrative structures (EPAS 3.4) to foster a learning environment that is representative of social work professional commitments and capable of producing competent social work practitioners (CSWE, 2008).

The design and the components of the EPAS provide strong evidence of the growing influence of concepts of cultural competence in social work education. Developed by the accrediting body of social work education, the EPAS demonstrates an institutional commitment to the idea that professional competencies can be developed through educational attention to core components of cultural competence: attitude, knowledge, and skill development. Furthermore, addressing these components of cultural competence through both explicit and implicit domains reflects an understanding of cultural competence that suggests the potential influence of organizational-level factors within a learning environment on the development of individual-level competencies. This attention to multiple levels of foci related to cultural competence fits nicely within the structure of the MDCC framework.

It is also important to note that in addition to highlighting the growing importance of cultural competence in social work, the EPAS (CSWE, 2008), the NASW (2001) Standards for Cultural Competence in Social Work Practice, and the NASW (2008) code of ethics also specifically acknowledge a broadening conceptualization of diversity inclusive of religious/spiritual difference, age, social class, mental/physical ability, ethnic/racial groups, and (most important to this study) gender and sexual minorities. Such policy statements express growing emphasis on evolving understandings of who is included in concepts of cultural competence in social work, demonstrating direct structural support of efforts to develop social work professionals capable of supporting clients with a myriad of cultural backgrounds.

B.   LGBT-Competence and Social Work

Broadening understandings of cultural competence specifically identify the need to further develop concepts of social work with sexual and gender minorities. However, evidence of persistent social worker bias against sexual and gender minorities suggests that negative attitudes held by social workers or expressed in the service environment are barriers to culturally competent practice (Logie, Bridge, & Bridge, 2007; Swank & Raiz, 2010). This limitation to social work is particularly troubling given its incongruence with social work's professional mission to support vulnerable populations (NASW, 2008). Because LGBT groups continue to experience profound historic and continued social inequality, and because social work is a profession committed to fighting such oppression, there is a great likelihood that all social workers will be asked to support LGBT clients (whether or not this identity is made known to the worker) at some point in their career. Therefore, to realize their professional mandates and be considered a competent social worker, it is imperative for social workers to recognize that

support for LGBT groups is included in their professional expectations, and work to overcome personal and organizational barriers to this support.

Inclusion of sexual orientation and gender identity in policy statements and commitments to diversity certainly represent professional recognition of the need to support LGBT groups in social work (e.g., CSWE, 2008; NASW, 2001; NASW, 2008). Structural recognition of this need in social work began in the 1990s, with NASW's condemnation of reparative therapy and discrimination based on sexual orientation in social work practice (NASW, 1993), and CSWE requirement of course content on lesbian and gay persons in social work education (CSWE, 1992; 1993). A departure from the previous focus solely on ethnic/racial diversity in social work, these early efforts called attention to unique oppression faced by sexual minorities and highlighted the role professional education plays in producing professionals capable of combating such oppression. These early statements of support for sexual minorities in professional mandates, and the subsequent inclusion of similar support for gender minorities, are based on the idea that in order to provide informed and sensitive practice to LGBT groups, social workers must receive appropriate training in order to develop self-awareness related to LGBT-specific beliefs/attitudes and societal prejudices, LGBT-specific knowledge, and skills related to professional support of sexual and gender minority clients (Gezinski, 2009; Messinger, 2002).

1. **LGBT Culture**

Articulating expectations of support for sexual and gender minorities within social work standards of cultural competence and other professional commitments implies the there is a distinct LGBT culture. Lum (1999) defines culture as the institutions, language, artistic expressions, and patterns on social and interpersonal relationships that are passed on from generation to generation within a group of people. With this description of culture, it can be

argued that there is such a thing as LGBT culture because members of these groups share

commonalities indicative of the development of culture (Morrow & Messinger, 2006). LGBT

individuals are bonded by shared challenges with social oppression (e.g. homophobia,

transphobia, heterosexism, binary gender bias), LGBT-focused social institutions (e.g. churches,

community centers, civil rights groups), and patterns of social expression passed on through

generations (e.g., coming out, coping with discrimination, forming familial ties).

It is important to recognize that while such commonalities bind LGBT people into a

recognizable cultural community, LGBT groups also each have their own distinct characteristics

and experiences. As Morrow and Messinger (2006) describe, these groups have both a collective

culture constituted by their shared experiences, and each of these groups also has its own unique

subculture within the overall LGBT culture. This dual recognition of both collective and sub

cultures makes conceptualizing or measuring LGBT-cultural competence a particularly tricky

endeavor because of the tension between wanting to include attention to each sub-group, and the

potential for misrepresenting collective LGBT-competence due to under or over-emphasis of one

or more of the sub-groups. This problem is particularly salient with regards to gender minorities,

whose culture is increasingly perceived as distinct from sexual minoritiesand deserving of

transgender-specific attention within helping professions (Carroll & Gilroy, 2002). For this

reason we now turn our attention from the collective LGBT construct to discuss first sexual

minority (LGB) competence and then gender minority (T) competence in social work.

2. <u>Sexual Minority Competence</u>

Recognition of the fit between elements of improving services to LGBT groups and

components of developing cultural competence has led social work to explore how frameworks

of cultural competence might be applied specifically to work with sexual minorities (see Crisp,

2006; Van Den Berg & Crisp, 2004).   Such applications are currently few in number, and often

conflate transgender issues with sexual orientation issues or include the "T" without providing

transgender-specific information. Nevertheless, this emerging domain provides valuable insight

into improving social work with sexual minority groups and draws from a wide array of related

cultural competence sources, combining models developed in psychology, counseling, and social

work, such as multicultural competence, Gay Affirmative Practice (GAP), person in

environment, and social justice and strengths perspectives (Appleby & Anastas, 1998; Crisp

2006; Van Den Berg & Crisp, 2004). Van Den Berg and Crisp (2004) synthesize key themes

from these frameworks (though they conflate transgender identity with LGB identities) within

the traditional framework of attitudes, knowledge, and skills to provide professional principles of

culturally competent practice with LGBT clients, as noted below.

Attitudes

1. Same gender sexual desires and behaviors are viewed as a normal variation in human sexuality.
2. The adoption of GLBT identity is a positive outcome of any process in which an individual is developing sexual identity.

Knowledge

3. Service providers should not automatically assume that a client is heterosexual
4. It is important to understand the coming out process and its variations.

Skills

5. Practitioners need to be able to deal with their own heterosexual bias and homophobia.
6. When assessing a client, practitioners should not automatically assume that the individual is heterosexual.

Assessing whether these principles are realized in practice with sexual minorities requires

that social work adapt general understandings of cultural competence to define and measure

concepts of cultural competence as they pertain to LGB-specific social work. Similar efforts in

psychology and counseling have yielded a handful of instruments, such as the Index of Attitudes

towards Homosexual (Hudson & Rickets, 1980; Siebert et al., 2009), the Attitudes towards

Lesbians and Gays Men Scale (Herek, 1988), and the Sexual Orientation Counselor Competency

Scale (Bidell,2005) designed to assess attitudes, knowledge, or skills believed to be indicative of

positive/negative perceptions of sexual minorities and related to practitioner competence within

LGB- populations. These measures have been applied within social work settings to examine

attitudinal change after intervention (Ben-Ari, 1998), the relationship between environmental

factors and support of sexual minorities (Kissnger et al., 2009), and predictors of practitioner

support of LGB groups (Swank & Raiz, 2010). However, there remain few examples from

social work-based literature that attempt to define or measure concepts of cultural competence as

they apply to social work with LGB groups.

One notable exception is Van Den Berg and Crisp (2004), who define culturally

competent social work practice with sexual minorities by extrapolating principles of cultural

competence to practice with LGBT clients, suggesting specific attitudes, knowledge, and skills a

practitioner needs to acquire to be culturally competent with sexual minority clients. These

authors argue self-examination of attitudes towards sexual minorities is imperative for

professional competence when working with these groups, and they suggest five steps

practitioners can take to develop this self-awareness. These include reflecting on; (1) one's own

sexual orientation; (2) previous personal/professional contact with sexual minorities; (3) positive

and negative reactions to sexual minorities; (4) self- awareness of heterosexism/homophobia;

and (5) participation in personal/professional activities that foster a greater understanding of

sexual minorities and their culture (Van Den Berg & Crisp, 2004). The authors also argue that

competence with sexual minorities requires practitioners have a wide array of specific

knowledge in areas such as terminology related to sexual minority culture, intragroup diversity,

group experiences with discrimination/oppression, and the impact of social policies and organizational systems on the group. Furthermore, Van Den Berg and Crisp (2004) identify specific skills representative of social work competence with sexual minorities including creating a gay-safe treatment milieu, assessing, not assuming clients' sexual orientation, recognizing indications of internalized homophobia, and engaging in ongoing training and continuing education around sexual minority issues (for other descriptions of LGB-competent practice see Appleby & Anastas, 1998; Crisp, 2006; Crisp & Dinitto, 2004).

In addition to exploring LGB-competent social work practice, there is also some literature that is particularly relevant to this proposal's attention to organizational-level LGB-competence on how such competence might be reflected through social work education. A growing number of social work academicians, such as Gezinski (2009), Messinger (2002), Van Den Berg and Crisp (2004), and Holley and Segal (2005) provide suggestions on how to support LGB-competent organizational structures that actively interrupt homophobia and heterosexism. These authors argue such organizations are those that: (a) infuse LGBT course content throughout the curriculum, (b) note sexual orientation and gender identity within non-discrimination policies, (c) provide continued training for employees regarding LGBT issues, (d) maintain a welcoming and safe environment for LGBT people, (e) have/seek openly identified LGBT employees, and (f) have/seek heterosexual employees that identify as LGBT-allies. Thus LGBT-competence in social work depends on improving the capacity of social work programs to address these issues through aspects of both the explicit and implicit curriculum.

3. **Gender Minority Competence**

Transgender is an umbrella term that applies to a range of individuals who express gender in nontraditional ways because their sense of self does not conform to traditional

expectations for those assigned male or female sex. This term is inclusive of self-identified bigenders, cross-dressers, transsexuals, drag kings/queens, two-spirits, or gender-blenders (Burdge, 2007). Though attention to such gender minority groups has increased in recent years, understanding of cultural competence with transgender people remains a much less developed area of social work than of competence with sexual minorities. In many cases literature on these groups frequently refers to the collective LGBT population but often omits attention to transgender-specific issues, or conflates gender minorities within the term *sexual minorities* (e.g.,Van den Berg & Crisp, 2004). As a result literature addressing transgender-specific competence is sparser than that on LGB groups within the field of social work, and when addressed, often developed without a focus on transgender-specific issues.

Awareness of the need to develop this particular area of cultural competence is growing in helping professions, however, due to increasing evidence suggesting transgender communities experience unique and particularly harmful experiences compared to sexual minorities. For example, transgender people experience the most severe violence of people targeted due to their sexual orientation or gender identity (National Coalition of Anti-Violence Programs [NCAVP], 2013), and adolescent transgender students are the least likely sub-group of the LGBT collective to believe their school communities are safe and are most likely to experience harassment in school (Gay, Lesbian, Straight, Education Network [GLSEN], 2012). Yet despite growing awareness of these challenges experienced by transgender people, support of gender minorities seems particularly problematic in social work. Social work students show higher levels of transphobia than homophobia (Logie, Bridge, & Bridge, 2007) and social work education appears less concerned with and less prepared for addressing transgender-specific issues compared to LGB –specific issues (Friedriksen-Goldsen, Woodford, Luke, & Gutierrez, 2011;

Martin et al. 2009). These findings suggest that the capacity of social workers and social work education to support gender minorities remains more limited that its capacity with sexual minority groups.

Though few in number, authors such as Markman (2011) and Burdge (2007) who focus on transgender-specific social work do provide some useful guidance on factors that may help development of gender minority competence in social work. In summary, these authors suggest social workers can improve support for transgender groups by:

- Enforcing social work ethics and challenging the rigid gender binary by promoting the idea that it is ethically necessary social workers deconstruct the social meaning of gender and expanding concepts of gender to include a continuum of gender possibilities.
- Encouraging education about and dialogue on gender identity within agencies and schools. The value of self-reflection on the issue of gender is of particular importance.
- Amending structural factors within an organization to be welcoming toward gender minorities, such as changing agency forms and charts to reflect a gender continuum beyond the usual *male* or *female* binary options, or providing gender neutral bathrooms.
- Advocating for the rights, value, and safety of transgender communities, and the elimination of gender identity disorder from the DSM IV.
- Presenting transgender identity as a viable identity option for gender-variant clients.

These suggestions provide a starting point for improved gender minority support in social work practice. However, this aspect of social work needs further exploration in order to clarify practical frameworks for developing transgender-competence, how transgender-specific competence, might be improved in schools where it is lacking, and how such programs might instill greater transgender-competence in their students. It is for these reasons that this study differentiated conceptualization and measurement of transgender-competence from LGB-competence.

C.   Barriers to LGBT-Competence in Social Work Education

Despite the current emphasis on cultural competence in social work and the increasing application of this concept to sexual and gender minority issues, numerous barriers exist to realizing LGBT-competence in social work practice and education. Applying the MDCC framework suggests examination of societal, individual, professional, and organizational levels of foci to reveal where such obstacles remain, and what factors might help improve LGBT-Competence in social work education.

1. Societal-level

A wealth of evidence demonstrates LGBT people are frequently the victims of violence (e.g., Martin & Alessi, 2012; Stozer, 2009), experience health-risks at disproportionate rates (Institute of Medicine, 2011), and remain negatively perceived by society (National Coalition of Anti-Violence Programs, 2013). In addition to these challenges there also exists socially ingrained heterosexism and binary gender bias throughout many facets of U.S. culture (Meezan & Martin, 2009; Norton & Herek, 2013). Heterosexism is defined as the promoting or valuing of heterosexuality over non-heterosexuality, and it functions to provide systematic privileges for

those who identify as heterosexual while simultaneously oppressing those who identify as lesbian, gay, or bisexual. With regards to gender identity, heterosexism finds its corollary in binary gender bias, which can be defined as the promoting or valuing of a strict binary understanding of gender (male or female) over other presentations of gender, and functions as systematic privileges for those who are cisgender (people whose experience gender in traditional ways) while simultaneously oppressing those who identify or are perceived as transgender. Acts of heterosexism and binary gender bias are often unconscious and subtle, but are evident in examples like exclusion of LGBT people from some faith communities, barriers to LGBT access to health care, and lack of federal employment protections for LGBT people (Grant et al., 2010; Lind, 2004). Such examples demonstrate ongoing societal oppression, inequality, and marginalization experienced by many sexual and gender minorities.

Given these societal-level challenges, it seems reasonable to conclude that many sexual and gender minorities could benefit from engagement with LGBT-competent social workers. Unfortunately, the social work academy is often criticized as reflecting societal bias against LGBT people. Consider, for example, that there remains a lack of credibility and support for LGBT-research in social work education, and social work faculty continue to avoid involvement in LGBT-issues for fear of being stereotyped as having a "gay agenda" (LaSala, Jenkins, Wheeler, & Fredriksen-Goldsen, 2008; Messinger, 2002). It is also argued that many social work programs lack transgender-specific course content or resources, contain faculty who feel topics such as homophobia, heterosexism, and transphobia are "less than important," remain hostile environments for LGBT students, or do not provide health care coverage to partners of employees in same-sex relationships (Fredriksen-Goldsen, et al., 2011; Hylton, 2005; Martin et al., 2009; Messinger, 2002). Such claims suggest social work education remains hesitant to

engage contentious LGBT-issues, marginalizes LGBT-scholarship, lacks consciousness of complexities of LGBT people, and directs little attention to how to combat societal-level barriers to LGBT-competence. It is not surprising, then, that social workers trained in these educational contexts frequently feel incapable of effecting societal-level change, and reflect societal bias against LGBT people through culturally non-competent service provision to these groups (Miller & Archuletta, 2013; Swank & Raiz, 2010).

2. **Professional-level**

Literature suggests factors like "traditional family" oriented values and religious beliefs characterize the historic culture of social work (Epstein, 1993; Hodge, 2005). The continued prevalence of such factors within the profession likely contributes to barriers to LGBT-competence in social work education, as conservative religious ideology and preferential support of traditional family structures or gender roles are significant predictors of negative perceptions of LGBT people among social work students (Chonody, Woodford, Brennan, Newman, & Wang, 2014; Kissinger et al., 2009). Juxtaposing this historic culture with social work's contemporary commitment to support LGBT people reveals an ongoing tension between personal beliefs of some social workers, with broadening definitions of who social work is meant to serve. Explicitly incorporating support of LGBT people into education policies like the CSWE (2008) EPAS suggests social work education is trying to overcome such professional-level barriers to LGBT-competence through changing culture-bound definitions and ethnocentric standards. This effort must be recognized as a positive step toward increased LGBT-competence in social work education. Yet despite this laudable intent, close examination of these policies reveals LGBT-competence remains underdeveloped in this context.

Designed to measure academic competence and accredit social work programs, the EPAS (CSWE, 2008) are meant to guide integration of social work ideals into education, and serve as guidelines for delineating expectations of social work education. The current design of the EPAS is a conscious step away from previous versions that were more prescriptive in their expectations, embracing instead a post-modernist approach to education (Jani, Pierce, Ortiz, & Sowbel, 2011). One interpretation of this approach is that it improves social work education by allowing flexibility and encouraging creativity in how programs demonstrate adherence to educational expectations. However, this seems to conflict with emerging recognition that many social work programs struggle with LGBT-issues and need explicit guidance in incorporating and measuring academic competencies related to work with LGBT groups.

As discussed earlier, there is direct mention of sexual and gender minorities in the EPAS (CSWE, 2008) with regard to anti-discrimination statements and support of diversity. While such statements acknowledge a broadening conceptualization of cultural competence in social work inclusive of LGBT groups, many related aspects of the EPAS remain vague, and require subjective interpretation in order to apply to educational support of LGBT groups. This interpretation often seems logical, but the ambiguity of these standards is a distinct weakness of professional expectations for social work education.

For example, all MSW programs seeking accreditation must demonstrate commitment to diversity in their curriculum. But EPAS related to diversity mention many forms of diversity including racial, religious, and age in addition to sexual orientation and gender identity (EPAS 3.1, CSWE, 2008). As such, it seems a program could meet diversity expectations by highlighting activities demonstrating attention to racial issues, or school closures on various holidays, without providing any mention of LGBT-specific diversity support. Similarly, the

EPAS do emphasize attention to supporting diversity through practice in core competencies that require students explore intersections of diversity and oppression in order to develop the ability to work with minority populations towards social justice (EPAS 2.1.4, CSWE, 2008). However, working effectively with racial minorities, for example, likely requires different abilities than working effectively with sexual minorities (Sue, 2001). This suggests the need for social workers to develop different competencies for different populations. Yet the EPAS provide no guidance on what activities might be applied to develop competencies related to LGBT populations, or any other uniquely oppressed groups. Without explicit LGBT-related competencies it is difficult to determine what educational activities may develop high-quality practice behaviors with LGBT populations, or how to assess the quality of LGBT-related education in social work.

Acknowledging these limitations is an important step toward redressing persistent professional-level barriers to support of LGBT people in social work. Certainly, the EPAS intend to affirm sexual and gender minorities, and a growing number of social work programs are taking on the challenge of improving LGBT-competence in creative and innovative ways (Martin et al., 2009). As they stand, however, the EPAS provide no clear guidance on how to meet this objective. Instead, how to address LGBT issues in social work curricula is left up to individual programs. This is concerning because the ambiguity of the EPAS on this topic may actually contribute to perpetuating the invisibility of LGBT people and issues within social work education. If many social work programs contain faculty with limited knowledge of LGBT-issues (Martin et al., 2009) and remain hostile environments for LGBT students or faculty (Hylton, 2005; LaSala et al., 2008; Messinger 2002), it seems unreasonable to expect these same programs to adequately address LGBT-competence development without more nuanced

guidance. Therefore the degree to which the EPAS promote LGBT-competence continue to reflect a professional-level barrier to improved LGBT-competence in social work academic contexts.

3. **Organizational-level**

Homophobia, heterosexism, transphobia, or binary gender bias found at individual, professional, and societal levels of social work education are also present at the organizational-level within many schools of social work (Gezinski, 2009; Rachlin, 2009). Because organizations are theorized to vary like individuals in their capacity to address issues related to culture (Sue, 2001), understanding organizational-level factors related to support of LGBT people within schools of social work is crucial to this study's attention to improving LGBT-competence in social work education.

Historically, a few social workers researchers have called attention to these issues in social work education through explorations of course content, policies, resources and organizational climate. For example, a study of 90 accredited social work programs in 1991 found only 43% of programs offered courses focused on the topic of sexuality, and 42% of programs offered no sexuality content at all within other courses in their curricula (Diaz & Kelly, 1991). In a survey of 27 social work textbooks Morrow (1996) found 81% of were either minimally inclusive of gay/lesbian content, presented negative connotations of gay/lesbian communities, or did not even mention sexual minority issues. Similarly, in an examination of social work program hiring practices and student retention, Mackelprang et al. (1996) found sexual orientation was consistently ranked lower in importance than issues of gender (male/female), or race/ethnicity, and 69% of programs placed little to no emphasis on recruiting, hiring, and retaining sexual

minority faculty members and 66% of programs placed little/no emphasis on recruiting/retaining lesbian or gay students.

Research from more recent years demonstrates the persistence of organizational-level limitations to LGBT-competence in schools of social work. Martin et al. (2009), for instance, found that 65% of 157 accredited social work programs randomly sampled in the U.S. do not include partner benefits for same-sex couples, and only 39% of programs reported a non-discrimination policy protective of gender identity, compared to 79% of programs that included protections based on sexual orientation. With regards to program resources, just over half of programs sampled in the this study claimed to have openly identified LGBT faculty members, 77% of programs lacked LGBT student groups, and 96% did not have gender-neutral bathrooms. This study additionally found only a few social work programs offered courses dedicated to sexual minority issues, and less than half of diversity courses included a LGBT component. It also appears research courses include LGBT content far less than all other content areas, and LGBT history is an infrequently examined topic. Relatedly, Fredriksen-Goldsen et al. (2011) found that among a sample of U.S. social work faculty, 18% said including content on transgender individuals and 38% said content on transphobia was "less than important." This study also found that faculty members were significantly more likely to support content about LGBT people compared to content on heterosexism, homophobia, biphobia, or transphobia. And though most social work faculty said they would use transgender-focused resources, only 57% of faculty reported having access to such resources.

Furthermore, it appears there is an association between the degree to which social work education addresses sexual and gender minority issues and persistently negative experiences of LGBT faculty and students in many schools of social work. As Dentato et al. (2013) argue,

social work programs lacking inclusion and support of LGBT issues and people are likely to be perceived as threatening by LGBT students.   Hylton (2005) relatedly suggests indicators like faculty and student displays of discomfort when discussing sexual minority topics and the invisibility of LGB-issues and people in social work programs can cause sexual minority students to perceive their educational environment as heterosexist, with pervasive subtle prejudices against sexual minorities. Messinger (2002) and LaSala et al. (2008) voice similar concerns, claiming LGBT-identified social work faculty also experience significant hostility within their programs. This literature demonstrates how limited support of LGBT-issues in social work education perpetuates organizational climates negatively experienced by many LGBT students and faculty.

Despite decades-old mandates to address such issues in the classroom (CSWE, 1992), it is argued that LGBT-issues have only recently been infused into social work education (May, 2010). While it is encouraging that some social work programs have taken significant strides towards redressing barriers to support of LGBT groups in recent years (Martin et al., 2009), such organizational improvements remain limited. The literature described above provides convergent evidence to suggest significant organizational-level barriers continue to challenge LGBT-competence in schools of social work, particularly limited attention to transgender issues, capacity to examine LGBT-oppressions and structural inequalities, and the maintenance of learning environments affirming of LGBT issues and people. It is troubling that despite such organizational weaknesses few programs provide their faculty with LGBT training opportunities, or systematically evaluate the quality of their educational environment related to support of sexual or gender minorities (Martin et al., 2009). Interestingly, it seems social work faculty are aware of how organizational barriers impact the capacity of students to work effectively with

LGBT groups, as Martin et al. (2009) found that 41% of faculty surveyed stated their program does not adequately prepare students to provide competent services to LGBT individuals. Yet despite recognition of a connection between organizational limitations in social work education and effectiveness of practice with sexual and gender minorities, many programs do not address LGBT issues in enough depth to dispel claims that schools of social work present heterosexist perspectives, create a climate that is uncomfortable or unwelcoming to many sexual and gender minority faculty and students, and inadequately produce LGBT-competent professionals.

4. __Individual-level__

Barriers to LGBT-competence at the individual level include biases, misinformation, and prejudices, which often manifest as discrimination. Efforts exploring such obstacles in social work education generally focus on measuring student or faculty LGBT-specific attitudes or knowledge as a means of assessing perceptions of, or capacity to work with LGBT people. For instance, Newman, Dannenfelser, and Benishek (2002) determined only 6.5% of beginning social work and counseling students showed intolerance towards lesbians and gay men. Swank and Raiz (2010) found a slightly positive skew in attitudes towards sexual minorities in a group of undergraduate social work students. Research on faculty social attitudes show similar trends, demonstrating that support for sexual minority people and issues are generally high among social work faculty (Fredriksen-Goldsen et al., 2011; Woodford, Brennan, Gutierrez, & Luke, 2014).

Though levels of fear or hatred of sexual minorities (homophobia) may be low in social work education, heterosexist perspectives remain a problem among faculty and students. A recent study of heterosexual social work faculty found that 14.5% and 13.9% of respondents reported at least moderately negative views about gay men and lesbian women, respectively (Chonody et al., 2014). Similarly, Raiz and Saltzburg (2007) found that while only 21% of a

sample of social work students did not accept lesbians and gay men, 40% were within a 'tolerant with conditions' subgroup characterized as heterosexist. These studies also identify conservative religious beliefs, political ideology, and family expectations as some of the most significant indicators of negative perceptions of sexual minorities. Such findings suggest the potential impact of individual beliefs on organizational-level cultural competence, as the collective negative perceptions of LGBT people among some social work faculty and students likely contribute to educational climates that struggle with LGBT-competence.

Because heterosexism is a less understood, harder to identify construct often embedded or hidden within social norms, social work students or faculty who can state with certainty that they are not homophobic may not yet be self-aware enough to recognize how certain practices, attitudes or expectations they exhibit reinforce subtle indicators of heterosexism that may negatively impact the LGBT-competence of their social work program. Examples of such heterosexism at the individual-level include: visible discomfort on the part of faculty or students in classroom discussions about sexual minority issues (Hylton, 2005); the expectation that publicly identified LGBT faculty/students will serve as vocal classroom experts on LGBT issues (Chinell, 2011; Messinger, 2002); and increased professional scrutiny experienced by 'out' faculty as a result of heightened visibility within their programs (LaSala et al., 2008).

It is important to note that though some of the studies mentioned above nominally include transgender people, they tend to collapse sexual and gender minorities together and emphasize attention to sexual minorities, thus overlooking potentially important differences in perceptions of LGBT subgroups. As such, existing literature does not allow strong conclusions to be made regarding individual-level student or faculty perceptions of transgender people in social work education. Indeed, only one study could be found that measured social work student attitudes

towards gender minorities (Logie, Bridge, & Bridge, 2007). This study and two similar studies from the field of counseling (Eliason, 2000; Eliason & Hughes, 2004) provide some evidence to suggest similar professions demonstrate higher levels of negative attitudes towards transgender people than sexual minority groups.

It is interesting that although studies show most social work faculty and students demonstrate generally high levels of support for LGBT people, LGBT issues remain marginalized in social work education. This paradox is likely due in part to persistent heterosexism among social work faculty and students. However, it is also likely this marginalization may be because such individuals do not yet have the skills necessary to engage and combat subtle barriers to LGBT-competence in educational settings. Moving towards greater cultural competence at the individual-level can be particularly challenging because it requires individuals to acknowledge personal biases, discuss unpleasant realities (i.e., prejudice, discrimination), and accept responsibility for actions that perpetuate such realities. This is difficult work, particularly within the context of social work education, as some research reports social work students and faculty often lack the capacity to engage with LGBT-issues in an appropriate manner in classroom discussions or activities (Chinell, 2011; Hylton, 2005). Yet studies that examine faculty or student LGBT-competence tend to emphasize measurement of knowledge or attitude components, and they pay relatively little attention to skills. This reveals the need for and importance of further examination of faculty and student skills related to LGBT-competence in social work education.

D.   Summary and Implications of the Literature

The preceding literature review reveals a number of key issues regarding development of LGBT-competence in social work education. First, concepts of cultural competence are

relatively new to social work, and represent the latest iteration of approaches to developing practitioners capable of working effectively with diversity within this profession. The current emphasis on cultural competence is structurally supported by statements and policies from social work organizations that dictate professional standards of practice and education highlighting ethical commitments to respecting diversity and supporting marginalized and oppressed social groups. The infusion of concepts of cultural competence is particularly apparent in the CSWE (2008) EPAS, which intend to guide the development of professional competencies through aspects of the explicit and implicit curriculum. These student competencies are believed to be indicative of fundamental social work ideals and values.

Second, the conceptual broadening of cultural competence to include sexual and gender minorities has fomented increased attention to exploring such competence within LGBT-specific contexts. Though this application remains underdeveloped in social work, particularly with regards to gender minority issues, preliminary efforts to define LGBT-competence suggest the important role social work education plays in combating homophobia/heterosexism or transphobia/binary gender bias and producing practitioners competent to work with LGBT clients. This exploration reiterates the value of assessing attitudes, knowledge, and skills related to cultural competence, and calls attention to the need for education to address curriculum content specific to LGBT groups across concentration areas and to attend to organizational aspects of providing a learning environment that is affirming of sexual and gender minorities. And finally, despite increased emphasis of and commitment to the value of cultural competence in social work practice and education, there remain significant barriers to LGBT-competence in social work education. Exploring literature related to these barriers at societal, professional, organizational, and individual levels of foci reveals important limitations to this competence,

including underdeveloped professional standards and educational content in support of LGBT groups, persistent negative attitudes towards LGBT groups by some social work faculty and students, and heterosexist policies and environments too often characteristic of social work education.

Furthermore, the research described above permits a number of conclusions to be made related to the intents the current study. First, the lack of social work literature on LGBT-competence within social work education suggests the need for more research in this domain, to continue to develop professional understandings of competence with sexual and gender minorities, particularly within social work institutions. Second, what little research does exist that explores social work education in this way either samples faculty perspectives as means of gauging programmatic attention to LGBT issues, or samples student perspectives as an indicator of LGBT-competence. No study has combined a sample of faculty and students to provide a means comparing perceptions of educational support for sexual minorities from these two groups, and no study has simultaneously measured MSW program and student competence in order to explore the relationship between organizational and individual-level competence development. And third, new information gleaned from research attempting to address these gaps in our understanding of LGBT-competence in social work education would be of immense value to both schools of social work interested in improving their curriculum or seeking accreditation, and organizations such as CSWE that continue to develop standards and policies that guide social work towards increasing sensitivity to the needs of unique cultural groups. With these conclusions in mind, we now turn to a discussion of the methodological aspects of this study, and its purpose of assessing LGBT-competence in social work education.

CHAPTER III — METHODOLOGY

This study examined LGBT-competence in social work education through analysis of organizational (implicit/explicit curricula) and individual (faculty/student) aspects of LGBT-competence. Primary data used for this analysis was quantitative, drawn from a sample of active social work program directors, faculty, and students in master of social work (MSW) programs in the United States. The study addressed three primary research questions:

(Q1). Do perceptions of organizational LGBT-competence differ between faculty and students, after controlling for organizational and individual contexts?

(Q2). Is organizational LGBT-competence of a social work program associated with individual self-perceived LGB-competence of students within that program?

(Q3). Is organizational LGBT-competence of a social work program associated with individual self-perceived transgender-competence of students within that program?

A.   Study Design

This cross-sectional exploratory study utilized an internet-hosted, two-stage survey design. A sample of accredited MSW social work programs was first identified. The first stage of the survey then gathered data from the program director of each MSW program participating in the study. The second stage of the survey then gathered data from full-time faculty members and active MSW students within these participating MSW programs. Data were gathered once, and measured three primary variables: participant status; organizational LGBT-competence; and individual LGBT-competence. The participant variable had two levels: faculty or student. Organizational LGBT-competence was measured in three different ways: through participant (faculty and student) perceptions of their program's organizational LGBT-

competence [POC, level-1 variable]; through program director perceptions of their program's organizational LGBT-competence [DOC, level-2 variable]; and through aggregating POC scores of faculty and students from the same program at the organizational-level [AggPOC, level-2 variable]. Individual LGBT-competence had two levels: student competence with lesbian, gay, and bisexual groups (LGB-competence); and student competence with transgender people (transgender-competence). Individual LGBT-competence was derived from data gathered only from student participants that measured their self-perceived competence with LGB and transgender groups. Addressing the primary research questions of this study involved analysis of these data through three 2-level hierarchical linear models (HLM). The first HLM examined the relationship between participant status and individual-level perceptions of organizational LGBT-competence (POC). The second HLM assessed the relationship between organizational LGBT-competence (DOC and AggPOC) and individual-level competence with LGB groups (LGB-competence). The third HLM assessed the relationship between organizational LGBT-competence (DOC and AggPOC) and individual-level competence with transgender people (transgender-competence).

Derived from the MDCC model of cultural competence (Sue, 2001), the proposed research was designed simultaneously to be culture specific (LGBT-focused), sensitive to multiple levels of foci (organizational and individual), and include attention to key components of cultural competence (attitudes, knowledge, and skills). This study proposed three hypotheses:

(H1). After controlling for organizational and individual contexts, faculty perceptions of their organization's LGBT-competence will be higher than student perceptions.

(H2). A social work program with higher levels of organizational LGBT-competence will also have students with higher self-perceived individual LGB-competence.

(H3). A social work program with higher levels of organizational LGBT-competence will also have students with higher self-perceived individual transgender-competence.

B.   **Sample**

This study used a hierarchically structured sample comprised of two levels: a sample of MSW programs (level-2); and a sample of MSW faculty members and students from within these sampled programs (level-1). Details on the identification and recruitment of this sample are provided below.

1. **Sample size determination**

To determine the appropriate sample size for the HLM models applied in this study, a priori power analysis was conducted using the *Optimal Design* computer program (Raudenbush et al., 2011). Estimating necessary sample sizes for HLM in the current research revealed a range of programs units and participants per program that will satisfy expectations of statistical power. This range depends on variable factors including the number of programs units (N), the number of participants within a program (n), and the estimation of the intraclass correlational coefficient (ICC) (see appendices G and H for estimates of statistical power at various groups sizes and ICC values).   Table I summarizes parameters that satisfy recommended statistical power expectations (β=.20, α = .05, *d*=.5) across a range of ICC values from .1-.15, as recommended by Sherbaum and Ferreter (2009). This table demonstrates the greater influence of program units on statistical power than the number of participants within a program, suggesting that for the current study a sample of 36 programs with 6-8 participants per program is as statistically powerful as a sample of 26 programs with 11-24 participants per program. Because it is likely more feasible to acquire a sample of more programs with fewer participants

per program than fewer programs with many more participants per program, the current study

aimed to gather a sample of at least 36 programs (N). With this number of program units, the

minimum number (with ICC= .1; alpha = .05; delta =. 5) of participants per program required for

sufficient statistical power was 6 (n), for a total sample of 252 (N + [N x n]).

TABLE I. ESTIMATES OF NECESSARY HLM GROUP SIZES

ICC[a] Values	Scenario A Groups (N) = 36 Group size (n)	Scenario B Groups (N) = 26 Group size (n)
0.10	(n) = 6	(n) = 11
0.13	(n) = 7	(n) = 15
0.15	(n) = 8	(n) = 24

Note: Power = .80, alpha = .05, effect size = .5

[a] Intraclass correlation coefficient

This study attempted to gather a larger sample than this minimum for 3 reasons: (1) to

account for a potentially higher value of ICC (.1-.15); (2) to provide extra responses within

program units in case some faculty/student responses are deemed unusable; and (3) to address

the need for slightly different samples for the 3 HLM designs used in this study (described in

greater detail in the analysis plan below). To account for these factors and still reach

recommended statistical power the current study intended to gather a sample of at least 36

programs, each represented by one program director participant (N), with a minimum of 10

combined faculty and student participants per program (n), for a total sample of at least 396

participants (N+ [N x n]). HLM analysis does not require a balance between individual-level

group sizes (faculty/students) within or between program units (Hartzler et al., 2012; Sherbaum

& Ferreter, 2009). However, it is advised that a minimum of 3 faculty and 7 student participants

per program be required for a program to be included in this study in order to address

comparisons of faculty and student responses and still maintain adequate statistical power (D.

Hedeker, personal communication, May 28, 2013).

2. **Inclusion criteria**

The hierarchical design of this study required two levels of inclusion criteria: eligible

MSW programs; and eligible faculty/student participants. Potentially eligible programs were

MSW programs accredited in the U.S. by CSWE. For a program within the study sample to be

initially included in this study, the program director of the program must have: (1) agreed to

participate in the study; (2) agreed to complete a brief director-specific survey; and (3) agreed to

forward the study invitation and survey internet-link to potential faculty and student participants

within their program. The program directors included in this study also must have satisfied a 3-

item eligibility screen by: (1) being an active MSW program director who (2) had worked in this

capacity within their program for at least 1 full semester, and was (3) 18 years-old or older at the

time of recruitment.

Potential faculty and student participants were social work faculty and students within

participant MSW programs. Faculty participants eligible for inclusion were those that: (1) were

active full-time faculty members who (2) had worked within their program at least one full

semester and who were (3) 18 years-old or older at the time of recruitment. Student participants

eligible for inclusion were those that: (1) were active full or part-time MSW students, with (2) at

least one completed semester within their program, and were (3) 18 years-old or older at the time

of recruitment.

The participant requirement of at least a semester's time spent within a given program

was chosen in order to ensure study participants have exposure enough to comment on the

organizational contextual factors of their social work program. Participating programs ultimately included in the HLM analyses of this study had: (1) director participation as described above and (2) a minimum of at least 3 faculty and 7 student participants within each program.

3. Participation Incentive

As an incentive for participation, all faculty and student participants were eligible to win an electronic Amazon.com gift card worth $30. Participants interested in this prize had an opportunity to opt-in to win this prize by submitting an email address as part of the online survey. This opportunity to enter an email appeared to participants through the internet-survey software, either when they completed the online survey, or when they chose to exit the survey without completing all the questions. At that point the internet survey software presented a page to participants that explained their contact information will only be used to select and contact gift certificate winners of 8 drawings determined through random-number generation. Each eligible participant could win one prize, and was included in all 8 random drawings if they had not yet won a gift card. These participant email addresses were collected concurrently with primary data collection, but kept separate from the primary data in a separate data file consisting only of email addresses. This file was password protected and stored using University of Illinois' "Box" cloud storage service (described in greater detail in the data collection section below). The email file was then used for the random-number generation of the 8 winners, and the corresponding email addresses were contacted electronically with an email informing the participant that they won the gift certificate, and providing an internet link that allowed award winners to redeem their prize. All notifications of the awards were sent within 3 months of the completion of data collection. All email addresses and correspondence regarding these awards were then deleted.

4. **<u>Sample Recruitment</u>**

Sample recruitment for this study took place between April 2014 and January 2015. The hierarchical design of this study required two levels of sample recruitment: recruitment of MSW programs and program directors (level-2); and then recruitment of faculty/student participants within these programs (level-1).

MSW program recruitment (level-2). To gather its level-2 sample, this study used a stratified random sample of all 236 CSWE-accredited MSW programs in the United States at that time (CSWE, 2014). All certified programs were divided according to program auspice; public (174), private sectarian (34), and private nonsectarian (28). Using random-number generation, 12 programs were then selected for recruitment from each of these groups so as to reach the desired minimum number of participating MSW programs (N=36). This approach was intended to ensure representation from all program auspice groups within the level-2 sample.

Once a sample of 36 randomly selected MSW programs was identified, the directors of these programs were contacted directly and asked to give permission for their program to be included in the study. Contact information for directors (names, email addresses and telephone numbers) were gathered from the websites of programs in the study sample. The researcher initially contacted program directors twice, first via an email, then a follow-up telephone call three days later. The initial email provided program directors with a description of the research and study procedures. The follow-up phone call allowed the researcher to describe the study in detail, answer any questions the program directors might have had, and identify program directors that were willing to participate in the study. The combination of this email and telephone call described the purpose of the current study, the researcher's intention to contact faculty and students within the director's program, and what was expected of participating

program directors. The researcher satisfied requests for additional information (e.g., proof of IRB approval, a participant information sheet) when program directors required such information before agreeing to participate or condoning contact with potential faculty or student participants. In the case of two participating programs, this involved satisfying a program's own IRB approval processes, which the research did successfully before gathering data from participants within said programs. Program directors who agreed to participate in the study were then sent a second email with an internet link to the brief director-specific portion of the study survey that gathers data on director-perceived organizational LGBT-competence. During the program recruitment period a number of programs did not respond to study invitations or opted out of the study. Therefore, subsequent rounds of program sampling and recruitment were conducted (in the same manner as described above) to gather an adequate level-2 sample of MSW programs.

Participating program directors were also asked to facilitate contact with potential faculty and student participants within their MSW program. The second email sent to program directors that agreed to participate in the study also contained recruitment messages written by the researcher for potential level-1 faculty and student participants. Participating program directors were asked to forward these recruitment messages to the MSW faculty and students in their program via emails to the faculty and student listservs of participating programs. Participating program directors then received a fourth communication two weeks after they agreed to participate in the study in the form of a reminder email, thanking them for their participation and reminding them to send the recruitment materials on to potential faculty and student participants within the given program.

Participant recruitment (level-1). All potential faculty and student participants within sampled programs were invited to participate through an email message, written by the

researcher and forwarded by participating program directors, including a description of the study

and an internet link that redirected participants to the faculty-specific and student-specific

portions of the study survey. One follow-up email was sent to all potential level-1 study

participants to remind them about the research and encourage them to complete the study survey.

Follow-up emails were sent from the researcher to each participating program director, and then

forwarded to faculty and student email listservs within these programs two weeks after the initial

faculty/student recruitment email. The follow-up email contained a description of the study and

an internet link to the appropriate portions of the electronic survey.

Three participating programs did not initially achieve the requirement of at least 3 faculty

and/or 7 student participants within 3 weeks of being sent the follow up reminder recruitment

email. In these cases, the researcher contacted the program directors of these programs again

and asked them to send another reminder recruitment email specifically to faculty members or

students, depending on which participant sub-sample was insufficient. After this final reminder

message all programs included in this study were able to realize the minimum participant sample

size.

C.   <u>Data Collection</u>

Data collection for this study occurred between April, 2014 and January, 2015, and was

completed electronically using *Qualtrics*, a secure internet-hosted software program that enables

researchers to create customized surveys and to view results graphically and in real-time.

Qualtrics is designed for sophisticated data collection and analysis, protects confidentiality of

data through encryption technology and password protection, and is a University of Illinois,

Chicago IRB-approved computer-based survey program (Qualtrics, 2013).

All potential study participants received an email describing the study and inviting them to participate. Potential study subjects who agreed to participate in this study accessed director-specific, faculty-specific, or student-specific versions of the study survey using an Internet Uniform Resource Locator (URL). This URL link was provided in the body of recruitment emails sent to all potential participants, and redirected them to the *Qualtrics*- hosted survey. Using the *Qualtrics* software, 36 such URL's were first created for program directors, one for each participating program. Next, another 36 URL's were created, one for each group of faculty/students from each participating program. These links connected all director, faculty, and student participants to the appropriate portion of the study survey, and allowed the researcher to differentiate between program director, faculty and student responses, as well as which responses came from within the same program. In order to protect the identity of participating program directors from being linked to the responses of the study survey, the match between these URL's and names of specific participating programs was only known to the researcher and was not recorded in any data file on *Qualtrics*. Therefore, it was impossible to identify a participating program from its survey responses. Upon accessing the appropriate URL, potential participating program directors, faculty and students were presented with a three-item screen determining their eligibility for the study in accordance with the inclusion criteria (Appendix A). These items assessed if potential participants were indeed an active MSW program director/faculty member/student, had functioned in this capacity for at least 1 semester in their current institution, and were 18 years-old or older at time of recruitment. If potential participants did not meet these inclusion criteria, the survey automatically informed them they were ineligible for the study, thanked them for their time, and skipped them out of the survey to a final page that provided

contact information for the primary researcher, should they have any questions regarding the study.

If potential participants were eligible for the study, they were presented with an electronic version of informed consent information within the electronic survey. Potential participants were advised that they were participating in a survey examining LGBT-competence in social work education, and an explicit statement of the purpose and objectives of the study, together with potential benefits and risks of participation, was provided to all potential participants. Participants were informed that participation was voluntary and confidential and that they could end their participation at any time without consequence. A waiver of documentation of informed consent was obtained from the University of Illinois at Chicago's Institutional Review Board, and participants were advised that written documentation of their identity and informed consent was waived. The waiver of documentation of informed consent allowed participants to maintain their anonymity as written documentation of informed consent would be the only source of identifying information of participants connected to individual responses to the study survey. Participants were required to give their full consent in order to be included in this study. Participants indicated such consent to participation in the study by clicking an "I agree" key.

Participants who consented to the study were then presented different versions of the *Qualtrics* hosted study survey depending on their status as a MSW program director, faculty member, or student. The program director, faculty member, and student-specific surveys all included questions regarding participant perceptions of their program's organizational LGBT-competence (Appendix B). The faculty and student-specific surveys also included a brief demographic questionnaire (Appendix C). The student-specific survey asked additional questions about student's self-perceived individual LGBT-competence, specifically with regards

to; competence with LGB groups (Appendix D) and competence with transgender people (Appendix E).

Following data collection, all study data were downloaded from *Qualtrics*, and converted into three data files using *SPSS V.20* (IBM, 2011). The first file contained the primary study data gathered through the director-specific electronic survey from participating program director respondents (level-2 data file). The second file contained the primary study data gathered through the faculty/student-specific electronic survey from participating faculty and student respondents (level-1 data file). The third file contained the only potentially identifiable participant information, in the form of the email addresses provided by faculty/student participants who were interested in the Amazon.com gift card drawings. The level-1 and level-2 data files were used for the HLM analyses in this study (described in the analysis plan below). The third data file was not linked in any way to the survey responses of study participants, and was only used to randomly select winners of the participation incentive gift drawing. All of these files were password protected, and stored using the University of Illinois "Box" online cloud management service. This service obviates the need to store any study data on local hard drives, and it allowed the researcher to access the data from any location that had internet access through creation of a password protected file storage account. Participation in this study was confidential, and only the researcher had access to this data and any potentially identifying participant information. All potentially identifying information was destroyed following the data collection process and the awarding of the 8 electronic Amazon.com gift cards.

D.   **Measures & Instruments**

   1. Constructs and Definitions

   Cultural Competence: The ability to engage in actions or create conditions that maximize

the optimal development of clients and client systems across three primary dimensions: (1)

specific racial/cultural group perspectives; (2) components of cultural competence (attitudes,

knowledge, skills); and (3) foci of cultural competence (Sue, 2001).

   LGBT-competence: The ability to engage in actions or create conditions that maximize

optimal development of LGBT individuals/communities. For the purposes of the current study

this construct refers specifically to the ability of social work programs to support and affirm both

sexual minority (LGB-competence) and gender minority (transgender-competence)

individuals/communities, and includes both organizational and individual levels of foci.

   Organizational LGBT-competence: An organization's ability to engage in actions or

create conditions that support and affirm LGBT individuals/communities. For the purposes of

this study this construct refers specifically to LGBT-competence within MSW programs, and

includes analysis of both implicit and explicit components of social work education. There are

three types of organizational LGBT-competence assessed within this study. The first is termed

director-perceived organizational LGBT-competence (DOC), and refers to the organizational

LGBT-competence of a MSW program as perceived by that program's MSW director. DOC is

measured by program director responses to the modified Sexual Orientation and Gender

Expression in Social Work survey (SOGE), and is modeled at level-2 of this study's hierarchical

data structure. The second is termed participant organizational-LGBT competence (POC), and

refers to individual faculty/student perceptions of their program's organizational LGBT-

competence. POC is measured by the faculty/student version of the modified SOGE, and is modeled at level-1 of this study's hierarchical data structure. The third is termed aggregated participant organizational-LGBT competence (AggPOC), and refers to collective perceptions of a program's organizational LGBT-competence from faculty and students from within the same program. AggPoc is derived from aggregating level-1 faculty/student responses to the modified SOGE by program, thus creating an organizational-level variable that was modeled at level-2 of this study's hierarchical data structure.

Individual LGBT-competence: A person's ability to engage in actions or create conditions that maximize optimal development of LGBT individuals/communities. For the purposes of this study this construct refers to acquisition of specific attitudes, knowledge, and skills among social work students pertaining to: competence with lesbian, gay, and bisexual groups (LGB-competence), as measured by the Sexual Orientation Counselor Competency Scale (SOCCS); and competence with transgender people (transgender-competence), as measured by the Gender Identity Competency Scale (GICS).

2. <u>Measures</u>

Independent and dependent variables of the current study were assessed through a series of measures that can be categorized as organizational-level or individual-level instruments. Further, the SOGE measure of organizational LGBT-competence (as described below) was examined at both organizational and individual levels. Measures were chosen because of their exhibited appropriateness assessing constructs of the current study similarly defined in previous research. To better fit the participant sample and objectives of this study some modifications were made, or supplemental items were added, to existing instruments used in this study, slightly

changing the language and content of the measures. Reasons for such adaptations are discussed in greater detail below. The study survey was produced in English. For program directors, the study survey was estimated to take approximately 10 minutes to complete. For faculty participants the study survey was estimated to take approximately 15 minutes to complete.   For student participants the electronic survey was estimated to take approximately 25 minutes to complete.

Organizational LGBT-competence. To measure LGBT-competence of social work programs this study used two modified versions of the SOGE survey first developed and implemented by Martin et al. (2009) to assess implicit and explicit aspects of social work curricula related sexual and gender minority issues in social work education. The original application of this survey consisted of a self-administered questionnaire designed for social work program directors, and a different self-administered questionnaire designed for social work faculty. These questionnaires were developed using literature on teaching culturally competent practice with LGBT populations, optimal LGBT-supportive program policies, and concerns for LGBT-bias in social work education. Furthermore, items from these questionnaires were reviewed by subject experts among members of the CSWE Council on Sexual Orientation and Gender Expression for thoroughness and completeness (Martin et al., 2009).

For the purposes of this study the original director and faculty questionnaires have been reduced to form two brief questionnaires; one completed by program directors that measured DOC, and a second appropriate for both faculty and student participants that was used to measure both POC and AggPOC. Some components of the original questionnaires were omitted in the modified versions to reduce the time necessary for survey completion. These omitted items include questions about specific topics not of primary concern in this study (i.e.

adolescents, child-welfare, number of degrees awarded by a program), and questions on details

of specific curriculum-areas (i.e. policy, practice, research, HBSE). This process resulted in a

21-item SOGE questionnaire for program directors, and a 25-item questionnaire for

faculty/student participants. The additional items in the faculty/student questionnaire included

four questions about the perceived quality of a program's attention to LGBT issues (Appendix

F). An example of one of these questions is, "In general, how knowledgeable would you say

your program's full-time faculty members are about gender identity/expression and transgender

people?" (not at all/slightly/fairly/very). These items were originally intended to be used to

calculate another individual-level variable reflective of faculty/student perceived quality of a

MSW program. However, this variable was not ultimately included in the analyses of this study,

and so these items are not discussed further in this manuscript. Excluding these four items, the

program director and faculty/student versions of the modified SOGE substantively examined in

this study can be understood as two identical 21-item measures as described below. The SOGE

inventory created for the current study has never been used in previous research, and has not

been psychometrically tested. However, a test of reliability of this measure in the current study

demonstrated an overall Chronbach's alpha of .78.

The modified SOGE was divided into implicit (14 items) and explicit (7 items) aspects of

LGBT issues in social work education (Appendix B). Implicit curriculum items include

questions about program structure, admissions, faculty members, students, and program

assessment. An example of an item related to program structure from the modified SOGE reads,

"Does your social work program have a non-discrimination policy that includes sexual

orientation?" (yes/no/don't know). An example of an item about program faculty reads, "Does

your program have any openly LGBT faculty?" (yes/no/don't know). Explicit curriculum items

refer specifically to curriculum content and experiences in both field placements and classroom settings. For example, one explicit curriculum item reads, "is content on human sexuality covered in any of your required courses?" (yes/no/don't know). Another example reads, "does your program have any field placements where there is an opportunity to work with specifically with LGB issues or with LGB clients? (yes/no/don't know).

To measure DOC, responses to the modified SOGE from each program director were scored (yes = 1, no = -1, don't know = 0) and combined into an inventory, with higher DOC scores indicating higher organizational-level perceptions of a program's organizational LGBT-competence. To measure POC, responses to the modified SOGE from each faculty/student participant was scored (yes =1, no = -1, don't know = 0) and combined into an inventory, with higher POC scores indicating higher individual-level perceptions of a program's organizational LGBT-competence. To measure AggPOC, all POC scores from within a given program were combined and divided by the number of faculty/student participants within that program to obtain a mean value of POC scores per program. This process of using an aggregate of a level-1 variable to create a new level-2 variable is a common methodological approach within HLM analysis (Garson, 2013). In this study, the calculation of an AggPOC score for each program serves as a second measure of organizational LGBT-competence at level-2. Higher AggPOC scores indicate higher organizational-level perceptions of a program's organizational LGBT-competence. The full range of possible scores for DOC, POC and AggPOC was -21 to 21. The modified SOGE questionnaire was estimated to take approximately 10 minutes to complete.

As a whole the DOC, POC, and AggPOC measures of organizational LGBT-competence are understood to be subjective representations of a program's organizational LGBT-competence in that program director or faculty/student responses to SOGE items reflect the perceptions of

respondents, and therefore could potentially be inaccurate. For example, a program director or faculty/student could, due to lack of awareness, state that their program does not have a non-discrimination policy that includes attention to sexual or gender minority groups, when in truth the program does actually have such a policy. Nevertheless, program directors participants in this study were conceptually understood as organizational experts who likely knew about the structures, policies, resources, and curricula of their program. Data gathered from program directors was therefore seen as representative of organizational-level data, and was modeled at level-2 of this study rather than as individual-level data at level-1.

For the analytic purposes of the current study it is important to state that organizational LGBT-competence as measured by the modified SOGE was dually conceptualized as (a) individual-level perception of faculty and students (POC) that may vary within a given program unit and (b) shared organizational-level factors (DOC and AggPOC) experienced by both faculty and student participants within their common program unit. This approach is consistent with conceptualization and analytic designs described by Hartzler et al. (2012) and Baer et al. (2009) that are similar to the current study. The intent of this approach is to capture the construct of organizational LGBT-competence on two levels of analysis in a manner that minimizes untargeted measurement variance (Hartzler et al., 2012), allowing for analysis of potential individual-level differences in POC between faculty and students after controlling for organizational contexts (Q1), and determination of the relationship between organizational LGBT-competence (DOC and AggPOC) and individual-level LGBT-competence (Q2, Q3).

Organizational level Covariates. Two organizational-level covariates were included in the current study. The first is program auspice, which classified all programs in the sample as either a public, private non-sectarian, or private sectarian institution. The second is program region,

and which identified all programs in the sample as within one of 4 US regions (Northeast, Midwest, South, or West) as designated by the US Census Bureau (US Census Bureau, 2010a). All of these organizational-level covariates will be determined by the researcher using information from the official websites of all participating MSW programs.

  Individual LGBT-competence. Individual LGBT-competence in this study refers specifically to student self-perception of LGBT-competence, and was assessed through two measures: (1) a modified version of the Sexual Orientation Counselor Competency Scale (SOCCS), used to measure competence with lesbian, gay, and bisexual groups (LGB-competence); and (2) the Gender Identity Competency Scale (GICS), used to measure competence with transgender people (transgender-competence). These measures were administered only to student participants of this study. Together, the modified SOCCS and the GICS were estimated to take 10 minutes to complete.

  SOCCS. A modified version of the SOCCS was used to measure student self-perception of competence with lesbian, gay, or bisexual groups (Appendix D). This measure of individual LGB-competence was chosen because of its culture-specific focus on sexual minority competence and because its inclusion of three sub scales (attitudes, knowledge, and skills) fit most appropriately within the structure of the MDCC theoretical framework guiding this study. Other similar measures, such as the IAH scale (Greene & Herek, 1994), the California Brief Multicultural Competence Scale (Gamst et al., 2004), the GAP scale (Crisp, 2006), and the LGBT Assessment Scale (Logie, 2007) were explored but not chosen because they either did not have sexual minority focus, or they did not conceptualize individual cultural competence through attention to attitudes, knowledge, *and* skills.

The SOCCS was originally designed as a self-report measure of attitude, knowledge, and skill competencies of counselors related to work with lesbian, gay, or bisexual clients (Bidell, 2005). The scale contains 29 items:10 measure attitudes competencies, 8 measure knowledge competencies, and 11 measure skill competencies. The SOCCS uses a 7-point Likert-type scale ranging from 1 (*not at all true)* to 7 (*totally true).* To score the SOCCS for any given respondent all responses to test items are added, and then divided by 29 to obtain a mean score. Thus, SOCCS scores range from 1-7, with high scores indicating higher levels of sexual orientation competency. The overall coefficient alpha for this instrument was .90, with a .88 coefficient for the Attitudes subscale, .91 for the Skills subscale, and .76 for the Knowledge subscale (Bidell, 2005). The SOCCS has been applied in many studies involving measurement of sexual minority competence in educational contexts. It has been used to examine the impact of a LGB-focused training intervention on graduate student competence (Rutter, Estrada, Ferguson, & Diggs, 2008), comparing school counseling student and community agency student LGB-competence (Bidell, 2012), and assessing the LGB-competence of counseling and psychology graduate students (Bidell, 2012; Graham, Carney, & Kluck, 2012; Rutter, Estrada, Ferguson, & Diggs, et al., 2008).

For the purposes of this study certain aspects of the original SOCCS were modified to remain relevant to MSW student participants. For example, within the skills subscale item stating, "I have been to in-services, conference sessions, or workshops which focused on LGB issues in psychology", the word "psychology" was changed to "social work". Within the knowledge subscale, in the item that states, "I am aware that counselors frequently impose their values concerning sexuality upon LGB clients", the word "counselors" was changed to "social workers." In the attitudes subscale the item that states, "I believe that LGB clients will benefit

most from counseling with a heterosexual counselor who endorses conventional values and norms" was changed to "I believe that LGB clients will benefit most from support from a heterosexual social worker who endorses conventional values and norms." It is recognized that such modifications are a limitation to the current study in that they may negatively impact the established psychometric strength this measure. Nevertheless, this approach was necessary, given that there are no social work-specific instruments designed to measure individual LGB-competence that include knowledge, attitude, and skill components. It is also important to note that combining gay competence, lesbian competence, and bisexual competence into one scale may be perceived as another limitation of this measure, since competence might not actually be the same across these populations. A test of the reliability of this measure in the current study demonstrated an overall Chronbach's alpha of .83. The modified SOCCS was estimated to take 6 minutes to complete.

GICS. A 9 item Gender Identity Competency Scale (GICS) was created in order to supplement the SOCCS through attention to transgender-specific cultural competence (Appendix E). These items were adapted from, and parallel the same style and format of, the SOCCS, with 3 items per attitude, knowledge, and skills subscales. The choice to include only 9 items within this measure (rather than replicating the entire SOCCS with a transgender focus) was an attempt to reduce the time-burden of the longer student-specific portion of the study survey while still providing some preliminary data specific to transgender-competence. A sample of an item from the skills subscale states, "I have experience counseling transgender clients." In the attitude subscale an item states, "The lifestyle of a transgender client is unnatural or immoral." In the knowledge subscale a sample item includes, "There are different psychological/social issues impacting transgender people versus gay men and lesbian women." The scoring of the GICS

followed the same pattern as the SOCCS. All responses to test items from a given respondent were added, and then divided by 9 to obtain a mean GICS score. These scores ranged from 1-7, with high scores indicating greater transgender-competence. The GICS was estimated to take 4 minutes to complete, and a test of reliability demonstrated an overall Chronbach's alpha of .46. The creation of the GICS without extensive psychometric testing is recognized as a limitation to the current study.   However, because a search for a psychometrically tested instrument for individual-level transgender-specific competence revealed no results, this approach was deemed the best option available for addressing the need to include a measure of transgender-specific competence within this study's analysis of individual-level LGBT-competence.

 Individual Level Covariates. There are 7 individual-level covariates included in this study: (1) participant (full-time faculty/ MSW student); (2) age; (3) sexual orientation; (4) gender identity; (5) race/ethnicity; and (6) religion. These covariates were gathered from faculty and student participants through a 3-item participant eligibility screen at the beginning of the internet-hosted survey (Appendix A) and a 5-item participant demographic questionnaire at the end of the internet-hosted survey (Appendix C). Including these covariates facilitated exploration of study hypotheses through HLM analysis, such as differentiating between within-program faculty and student perceptions of organizational LGBT-competence (Q1).

E. <u>Protection of Human Subjects</u>

 To ensure the protection of human subjects within this research, an institutional review board (IRB) at the University of Illinois, Chicago, approved this research protocol (Appendix I). All potentially identifying data collected through this research were confidential and disassociated from individual responses to the study survey to protect the identity of participants. Any potentially identifying data collected were destroyed upon completion of the data collection

process and disbursement of the participant incentive gift drawing. All participant responses to

the study survey were confidential. All data gathered for this research were stored using the

University of Illinois "Box" online cloud management service. This service obviates the need to

store any study data on local hard drives, and allowed the primary investigator to access the data

from any location that had internet access through creation of a password protected file storage

account. The study data were password protected, and only the primary investigator had access

to study data. In accordance with IRB protocol, participation in this study was voluntary, and all

potential participants were provided documentation of their rights as human subjects, a

description of any potential harm or benefit from the study, and the opportunity to withdraw

from the study at any time without repercussion. Given the nature of this study, potential distress

or risk experienced by participants was expected to be minimal. Nevertheless, any participant

distressed by this process, or any aspect of this research was able to discuss their concerns with

the primary investigator of the research or the faculty advisor of this research. The primary

investigator of this research provided relevant email and telephone contact information, should

any participant care to discuss these matters.

F.   Data Analysis Plan

The primary tools for all data manipulation and analysis were *SPSS V. 20* (IBM, 2011)

and *HLM* 7 (Raudenbush, et al., 2011) computer-based statistical software.

1. Preparation of Data

Once gathered, primary data were downloaded from *Qualtrics* and converted into two

separate *SPSS* files: (1) a level-1 data file consisting of all faculty and student responses; and (2)

a level-2 data file consisting of all program director responses. These two files were then both

checked for cases that did not satisfy the 3-item eligibility screen at the beginning of the

electronic survey. These cases were then deleted from the datasets. Next, pertinent item

responses in the level-1 and level-2 datasets were used to calculate POC values for each

faculty/student respondent and DOC values for each program director respondent. As a

preliminary means of dealing with missing data, cases where a value for POC or DOC could not

be calculated (due to missing data in one or more items used to calculate POC) were deleted

from the dataset. The level-1 dataset was then used to calculate values for the SOCCS and GICS

variables, and to create dummy coded variables representing level-1 covariates of sexual

orientation, gender identity, race, and religious affiliation. Any missing data for these variables

wee addressed during HLM analyses (described below). The mean POC score per program was

then calculated using all faculty/student POC scores at level-1. These mean values were next

added to the level-2 dataset, one for each participating program, to represent the AggPOC

variable. Finally, *SPSS* was used to calculate descriptive statistics for each predictor and

covariate in the study, to examine the extent of missing data, and to assess statistical assumptions

related to data linearity and normality. Once the level-1 and level-2 datasets were prepared in

this manner, they could then be entered into *HLM* software to conduct this study's primary HLM

analyses.

2. HLM Analyses

Hierarchical linear modeling (HLM) was used to statistically analyze a data structure

where students and faculty members (level-1) were nested within MSW Programs (level-2)

represented by program director respondents. Three HLM analyses were examined to address

this study's primary research questions, each containing a series of HLM models that followed

this general structure:

Level-1: $y_{ij} = \beta_{0j} + \beta_{1j}*X_{1ij} + \ldots + \beta_{pj}*X_{pij} + r_{ij}$

Level-2: $\beta_{0j} = \gamma_{00} + \gamma_{01}W_{1j} + ...\gamma_{0q}W_{qj} + u_{0j}$
                $\beta_{1j} = \gamma_{10}$
                .
                .
                .
                $B_{pj} = \gamma_{p0}$

where i indexes participants within MSW programs, j indexes MSW programs;

y_{ij} is the outcome for participant i in school j;

$X_1,…,X_p$ are p participant characteristics (uncentered if dichotomous or dummy-coded; group-mean

centered if continuous) and indexed by i and j as above;

β_{0j} is the mean for program j, adjusted for the predictors $X_1,…,X_p$

$\beta_{1j} …, \beta_{pj}$ are the regression coefficients for school j, associated with the predictors $X_1,…,X_p$;

r_{ij} is the random error (i.e., residual term) in the level-1 equation

$W_{1j}… W_{qj}$ are q program characteristics (grand-mean centered) indexed by program j

γ_{00} is the intercept for the regression of the adjusted program mean on $W_{1j}… W_{qj}$ program characteristics

$\gamma_{01}…, \gamma_{0q}$ is the regression coefficient associated with $W_{1j}… W_{qj}$ program characteristic

u_{0j} is the random error in the level-2 equation

$\gamma_{10} …, \gamma_{p0}$ are constraints denoting the common values of the p regression coefficients across MSW

programs. For example, γ_{10} is the common regression coefficient associated with the first covariate in the

level-1 model for each MSW program

HLM 1. The first 2-level HLM analysis is designed to determine if there are significant

differences in perceptions of organizational LGBT-competence (POC) between faculty and

student participants, after controlling for organizational contexts ([Q1] Figure 4). Level-2 of this

model is at the program level, and includes DOC to control for program director perceptions of

their program's LGBT-competence, and 2 program covariates (auspice, region). Level-1 of this

model is at the individual level, and includes one primary predictor (participant) with two levels

(faculty/student), and 5 covariates (age, sexual orientation, gender identity, race/ethnicity, religion). The outcome variable is POC, as measured by the student and faculty version of the modified SOGE. In this first HLM analysis, POC is conceptualized as individual-level faculty and student perceptions of organizational LGBT-competence that may vary within a given program unit. This analysis is intended to allow for comparison between faculty and student groups on perceptions of their shared program's organizational LGBT-competence. The study hypothesis addressed with this model (H1) will be accepted if *p < .05*.

HLM 2. The second 2-level HLM analysis is designed to determine the relationship between a program's organizational LGBT-competence and individual LGB-competence of students within that program ([Q2] Figure 5). Level-2 of this model is at the program level, and includes two primary predictor variables: (1) program director perceptions of their program's organizational LGBT-competence (DOC); and (2) faculty and student perceptions of their program's organizational LGBT-competence aggregated by program (AggPOC). This level of the model also includes 2 program covariates (auspice, region). Level-1 of this model is at the individual level, and contains the primary outcome variable, SOCCS, as a measure of the LGB-competence of students. Level-1 of this model also includes 5 covariates (age, sexual orientation, gender identity, race/ethnicity, religion). In this second HLM analysis, organizational LGBT-competence is measured in two ways (DOC, AggPOC), and is conceptualized as shared program-level contexts experienced by both faculty and students within their common program unit. The inclusion of both DOC and AggPOC in this analysis is

Figure 4. HLM 1 (full model)

Level 2:
Program(X1..Xc)
Variables

Program 1:
- Organizational LGBT-competence (DOC)
- Auspice
- Region

Level 1:
Individual
Variables

- Participant (faculty/Student)
- Age
-Sexual Orientation
- Gender Identity
- Race/ethnicity
- Religion

Dependent
Variable

Individual perceptions of organizational LGBT-competence (POC)

Figure 5. HLM 2 (full model)

Level 2: Program(X1..Xc) Variables	**Program 1:** - Organizational LGBT-competence (DOC; AggPOC) - Auspice - Region
Level 1: Individual Variables	- Age -Sexual Orientation - Gender Identity - Race/ethnicity - Religion
Dependent Variable	Student LGB-competence (SOCCS)

intended to determine which of these two measures of a program's LGBT-competence is a better predictor of student self-perceived LGB-competence. The study hypothesis addressed with this model (H2) will be accepted if $p < .05$.

HLM 3. The third 2-level HLM analysis is designed to determine the relationship between a program's organizational LGB-competence and individual transgender-competence of students within that program ([Q3] Figure 6). Level-2 of this model is at the program level, and includes two primary predictor variables: (1) program director perceptions of their program's organizational LGBT-competence (DOC); and (2) faculty and student perceptions of their program's organizational LGBT-competence aggregated by program (AggPOC). This level of the model also includes 2 program covariates (auspice, region). Level-1 of this model is at the individual level, and contains the primary outcome variable, GICS, as a measure of the transgender-competence of students. Level-1 of this model also includes 5 covariates (age, sexual orientation, gender identity, race/ethnicity, religion). In this third HLM analysis, organizational LGBT-competence is measured in two ways (DOC, AggPOC), and is conceptualized as shared program-level contexts experienced by both faculty and students within their common program unit. The inclusion of both DOC and AggPOC in this analysis is intended to determine which of these two measures of a program's LGBT-competence is a better predictor of student self-perceived transgender-competence. The study hypothesis addressed with this model (H3) will be accepted if $p < .05$.

Phases of model testing. Each HLM analysis contained tests of multiple HLM models conducted in iterative phases. Each analysis began with a test of an unconstrained (null) model

Figure 6. HLM 3 (full model)
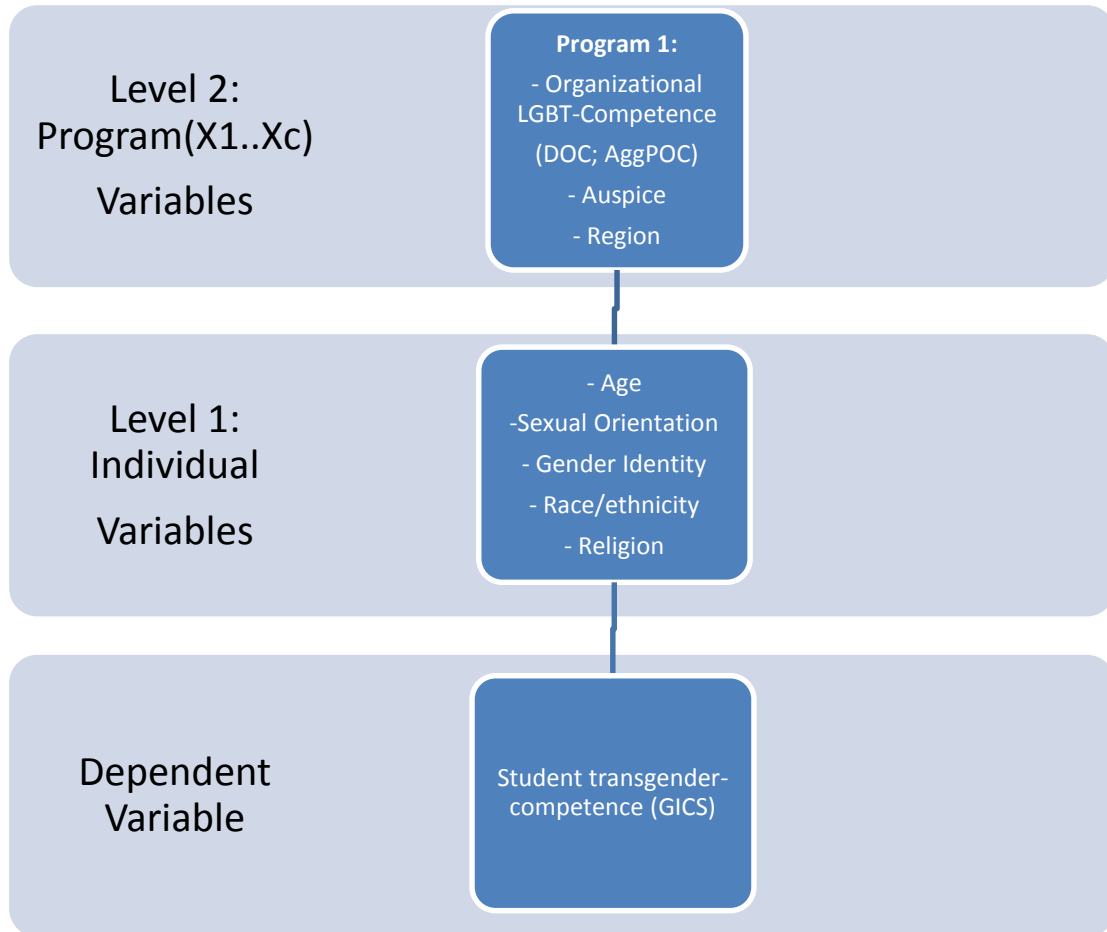
to allow for evaluation of whether or not variance (τ) in a level-1 outcome variable (i.e. POC, SOCCS, GICS) by a level-2 grouping factor (i.e. MSW programs) was statistically significant and different from zero. Chi-square test results of the random effects portion of a null model that are significant ($p <.05$) justify the use of HLM analysis, and indicate the need for further model testing. If an unconstrained model was found to be significant, it was then used to calculate the intraclass correlation coefficient (ICC). The ICC represents the ratio of variance of the observed responses at a given level to a total variance in responses (West, Welch, & Galecki, 2007), thus indicating how much variance in a level-1 outcome variable is accounted for at level-2 of a given model. If the variance of an unconstrained model was significant, the second phase of model testing examined the main effects of primary predictor variables on level-1 outcome variables. The final phase of testing then built on this structure by including all primary predictor variables of a given analysis, plus the addition of level-1 and level-2 covariates. These "full" models allowed for examination of primary study hypotheses while controlling for a variety of individual demographic factors and organizational characteristics. Details of these phases of model testing in HLM 1, HLM 2 and HLM 3 are provided in the results section below.

Specifics of HLM software. Each HLM model included in the analysis plan described above was examined using the "Test of homogeneity of level-1 variance" option within the *HLM* software to see if the assumption of homogeneity of variance was violated. *HLM* software was also used to create data files of level-1 and level-2 residuals of each model, in order to examine assumptions of normality and linearity of level-1 and level-2 residuals. In the event that any of these assumptions were violated, robust standard errors were reported in the results. *HLM* analysis output reports both regular standard errors and robust standard errors. Robust standard errors are standard errors that are relatively insensitive to misspecification at the levels of the

model and the distributional assumptions at each level, thus providing a more conservative

option for reporting model results (Garson, 2013). Relatedly, in the event of violated statistical

assumptions for any analyzed model, a mean variance regression model was used (in models that

contained a level-1 predictor) to further account for heterogeneous, non-normal, or non-linear

data. This was accomplished using the "heterogeneous sigma^2" option in *HLM* software that

allows distribution of errors to vary as a function of level-1 predictors, and is another method of

providing a more robust estimation of standard errors (G. Karabatsos, personal communication,

February 9, 2015). As a final note, all HLM models examined in this study employed run-time

deletion of cases with missing values for predictors or covariates included in a given model.

3. **Post-Hoc Analysis.**

A post-hoc analysis was used to supplement findings from HLM 1 related to differences

between faculty and student perceptions of their program's LGBT-competence. The aim of this

analysis was to similarly examine if program director perceptions of their program's LGBT-

competence were significantly different from faculty perceptions from the same program. To

accomplish this, a second level-1 dataset was created in *SPSS* inclusive of only program director

(DOC) and faculty (POC) perceptions of their program's LGBT-competence. Thus, program

director perceptions were modeled as individual instead of organizational-level data. Using

these data, an additional HLM analysis was conducted in a similar fashion to HLM 1, which

facilitated determination of whether program directors and faculty agreed on the level of

organizational LGBT-competence of their shared program

CHAPTER IV – RESULTS

The results of this study are presented first through a discussion of the descriptive statistics of the level-2 and level-1 sample and covariates included in study analyses. Primary results are then presented through a detailed description of the HLM analyses used to answer this study's three primary research questions.

A.   Descriptive Statistics

1. Final Sample

A total of 108 accredited MSW programs were invited to participate in this study over 3 rounds of random-selection and recruitment. Of these 108 programs, 36 were successfully recruited, 51 were non-responsive and 21 opted out of participation in this study (a positive response rate of 33%). Reasons given by program directors for opting out of the study included a lack of time to facilitate the research (7), concern about overburdening students with research participation requests (4), organizational policies that forbade sampling of students by researchers from other institutions (2), and non-descript refusal to participate in the study (8).

The desired level-2 sample size of N = 36 programs was reached during the third round of program selection and recruitment. By the third wave of random program selection all eligible private nonsectarian and sectarian MSW programs had been exhausted, so this last wave of selection drew only from the pool of remaining eligible public MSW programs. Of the 36 recruited programs, 2 ultimately did not provide data at level-1. For unknown reasons the program directors from these programs became unresponsive after initially agreeing to participate in the study, and did not pass on recruitment messages to their program's faculty members or students. Thus, these programs did not meet the inclusion criteria, had missing data

at level-1, and were excluded from this study. By this point in the recruitment process it wasclear within-program participant recruitment levels were much higher than expected, as the study had already surpassed the target sample size identified in the a priori power analysis (N + [N x n] = 396) by a wide margin. Therefore the researcher did not attempt a fourth round of program recruitment to increase the number of participating MSW programs.

Within the 34 programs included in this study, 279 faculty members and 1843 students responded to the internet-hosted study survey, for an initial level-1 sample of n = 2122. These responses were used to create the level-1 dataset, while the N = 34 program director responses were used to create the level-2 dataset. Of the level-1 cases, 29 faculty members and 530 students who responded to the study survey did not satisfy the 3-item eligibility screen, and so were deleted from the level-1 dataset. An additional 8 faculty and 204 student cases were deleted from the level-1 dataset because of missing data in items used to calculate POC. Bivariate analysis of the relationship between these cases and demographic covariates revealed no significant differences between participants who did, and participants did not, have complete data to calculate POC related to age, race/ethnicity, sexual orientation, gender identity, or religious affiliation.

As Table II shows, this resulted in a final level-1 sample of 1351 (n) participants; 242 MSW faculty members, and 1109 students. At level-2, no program directors were found to be ineligible for the study or have missing data in item responses used to calculate DOC. Therefore, the combined level-1 and level-2 sample included in this study's analyses was 1385 (N + [N x n]).

TABLE II. FINAL SAMPLE

Level-2	MSW Programs
	N
Program directors	34
Level-1	Participants
	n
MSW Faculty	242
MSW Students	1109

2. Level-2 Sample and Covariates

Table III presents the 34 MSW programs included in this study according to level-2

covariates; program auspice and program region. This shows that while public programs

represented the greatest proportion of programs in this sample, the stratified sampling method

employed to gather a level-2 sample succeeded in gathering a greater proportion of sectarian

(18%) and nonsectarian (29%) programs than exists in the sampling frame of 236 accredited

MSW programs (14% sectarian; 12% nonsectarian). Furthermore, the proportion of programs

from the Northeast (29%), Midwest (29%), and South (24%) were nearly equivalent, while

programs from the West (18%) represented the smallest proportion of sampled programs.

TABLE III. PROGRAM CHARACTERISTICS

	MSW Programs (n=34)	
	N	%
Auspice		
Sectarian	6	18%
Public	18	53%
Nonsectarian	10	29%
Region		
South	8	24%
Northeast	10	29%
Midwest	10	29%
West	6	18%

3.   <u>Level-1 Sample and covariates</u>

Table IV presents descriptive statistics of the level-1 sample of faculty and student participants (n = 1351) according to program. These results show that, on average, there were 7 faculty and 33 student respondents per program, and that programs that had between 5-10 faculty and 10-30 student respondents were most common.

TABLE IV. LEVEL-1 SAMPLE DIVISION BY PROGRAM

	n (1351)	%	Program mean	Program min	Program max
Participants					
Faculty	242	17.9%	7	3	56
Students	1109	82.1%	33	7	105

Faculty per program				**Students per program**	
	Programs	%		Programs	%
Less than 5	14	41.2%	Less than 10	3	8.8%
5-10	16	47.1%	10-20	12	35.3%
11-20	3	8.8%	21-30	8	23.5%
21-30	0	0.0%	31-40	3	8.8%
31+	1	2.9%	41+	8	23.5%

Table V presents descriptive statistics of the demographic characteristics of the level-1 sample. These results show that both the faculty and student sub-samples were; predominantly White (74% and 61% respectively); female (62% and 77%, respectively); heterosexual (61% and 69%, respectively); and Christian/Catholic (39% and 43%, respectively). Unsurprisingly, the student sub-sample tended to be younger than the faculty sub-sample, with a great majority of students being under 36 years old (72%), and a great majority of faculty being 36 or older (91%).

TABLE V. DEMOGRAPHIC FACTORS BY FACULTY/STUDENT STATUS

	Faculty (n=242)		Students (n=1109)		Total (n=1351)	
	n	%	n	%	n	%
Race						
White/Caucasian	178	74%	672	61%	850	63%
Black/African American	9	4%	86	8%	95	7%
Latino/Hispanic	18	7%	146	13%	164	12%
Asian	7	3%	48	4%	55	4%
P.I./N.A[a]	3	1%	4	0%	7	1%
Other	10	4%	70	6%	80	6%
Missing	17	7%	83	7%	100	7%
Age						
<=25yrs	1	0%	359	32%	360	27%
26-35yrs	20	8%	439	40%	459	34%
36-45yrs	57	24%	136	12%	193	14%
46+yrs	142	59%	97	9%	239	18%
Missing	22	9%	78	7%	100	7%
Gender Identity						
Male	65	27%	125	11%	190	14%
Female	151	62%	852	77%	1003	74%
Transgender/Other[b]	10	4%	56	5%	66	5%
Missing	16	7%	76	7%	92	7%
Sexual Orientation						
Heterosexual	147	61%	763	69%	910	67%
Lesbian	17	7%	50	5%	67	5%
Gay	26	11%	40	4%	66	5%
Bisexual	16	7%	69	6%	85	6%
Don't label	14	6%	66	6%	80	6%
Other	3	1%	46	4%	49	4%
Missing	19	8%	75	7%	94	7%
Religion						
Christian/Catholic	95	39%	476	43%	571	42%
No affiliation	69	29%	383	35%	452	33%
Jewish	32	13%	71	6%	103	8%
Muslim	0	0%	7	1%	7	1%
Hindu	2	1%	1	0%	3	0%
Buddhist	8	3%	22	2%	30	2%
Other	21	9%	71	6%	92	7%
Missing	15	6%	78	7%	93	7%

[a]Pacific Islander or Native American, [b]Includes "other" and "don't label my gender"

4. <u>Organizational and Individual LGBT-competence</u>

Table VI includes descriptive statistics of organizational LGBT-competence variables at level-1 (POC) and level-2 (DOC, AggPOC). These results indicate that on the level-1 POC scale (ranging from -21 to 21), the mean faculty and student scores of their program's LGBT-competence were 7.87 and 5.03, respectively. On the same scale at level-2, the mean MSW program director score for their program's LGBT-competence was 8.53 (DOC), while the mean faculty and student POC score aggregated by program at level-2 (AggPOC) was 4.66. Furthermore, as Table VII shows, the mean student self-perceived LGB-competence (SOCCS) score was 4.85, while the mean student self-perceived transgender-competence (GICS) score was 4.69 (on scales ranging from 1-7).

TABLE VI. ORGANIZATIONAL LGBT-COMPETENCE

Level-1	Faculty (n=242)				Students (n=1109)			
	Mean	Min	Max	SD	Mean	Min	Max	SD
POC	7.87	-12	19	5.92	5.03	-19	21	6.09

Level-2	MSW Programs (n=34)			
	Mean	Min	Max	SD
DOC	8.53	-8	19	6.33
AggPOC	4.66	-5.22	11.16	3.75

TABLE VII. INDIVIDUAL LGBT-COMPETENCE

	Students (n=1043)			
	Mean	Min	Max	SD
SOCCS	4.85	2	6.8	0.70
GICS	4.69	2.1	6.8	0.73

5. **Data Diagnostics**

Once a final sample was determined, the data was coded and checked for accuracy and

violation of statistical assumptions as described in the analysis plan above. All independent

variables at level-1 and level-2 tested negative for multicollinearity (VIF < 1.05). However,

examination of bivariate linearity revealed a number of independent variables appeared to have

non-linear relationships with primary dependent variables, and tests of normality revealed all

level-1 and level-2 variables (except age) to have non-normal distributions. Relatedly,

diagnostic tests conducting using *HLM* software indicated no HLM model examined in this study

violated the assumption of homogeneity of variance. Examination of level-1 and level-2

residuals, however, suggested multivariate data was not normally distributed and non-linear.

Because of these findings all HLM analyses described below report robust standard errors, and

all tested HLM models that included a level-1 predictor (except age) were modeled as

heterogeneous, as a means of addressing the violation of statistical assumptions and reporting

conservatively estimated results. Finally, because the "run-time deletion" option was applied in

HLM software, additional cases were omitted during each HLM analysis because of missing

values in model predictor or outcome variables. Because of such missing data, of the total 1351

level-1 cases included in the data, 112 were excluded from HLM 1, and 329 were excluded from

HLM 2 and 3. It is important to note the majority of the omitted cases in HLM 2 and HLM 3 were due to the exclusion of all individual faculty cases (n = 242) in these analyses. These deleted cases were therefore expected, as faculty respondents were not assessed for individual LGBT-competence, and so had no values for the primary outcome variables of these models (SOCCS and GICS).

B.   **HLM Analyses**

Three HLM analyses were conducted in order answer the three primary research questions of this study. Of specific interest was whether students and faculty had different perceptions of the LGBT-competence of their shared program (Q1; HLM 1), and whether a program's LGBT-competence was related to its student's self-perceived competence with LGB (Q2: HLM 2) and transgender (Q3: HLM 3) populations. These analyses tested a total of 12 HLM models, described below.

1. **HLM 1**

This analysis examined if students and faculty participants (level-1 predictor variable) within the same MSW program had different perceptions of the LGBT-competence (level-1 outcome variable) of their shared program, after controlling for individual and organizational-level contexts. Model testing proceeded in 2 phases: an unconstrained intercept-only (null) model, and a series of random intercepts models. A total of 3 models were tested in this first HLM analysis.

Unconstrained Model. This unconstrained model provided information about the variability of student/faculty perceived organizational LGBT-competence (POC) at both the individual (level-1) and organizational (level-2) levels. The model did not include level-2

variables, thus the main task of this phase of analysis was to examine whether the variance of POC across MSW programs (τ) was significantly different from zero. The equation representing the level-1 model is

$$POC_{ij} = \beta_{0j} + r_{ij}$$

and the level-2 model is

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

where *POC* represents scores in the outcome variable, perceived organizational LGBT-competence, β_{0j} is the intercept, or mean for MSW program j, at level-1, γ_{00} is the grand mean outcome, and the error terms r_{ij} and u_{0j} respectively represent the individual and organizational-level random effects.

Table VIII shows the results of this model, including estimates of grand program mean, the variance τ (random effect), the Interclass Correlation (ICC), a calculation of Akaike information criterion (AIC), and a reliability estimate. The Chi-square test in the random effect portion of this model tests the null hypothesis of $\tau = 0$. The ICC is the proportion of variance in POC that lies among MSW programs. The AIC is a measure of the relative quality of a statistical model for a given set of data, and thus can be used for a model comparison test where lower values in AIC indicate a better model. The reliability estimate is a measure of the reliability of each program's sample mean as an estimate of its true mean with values closer to 1.0 signifying a more reliable estimate.

TABLE VIII. HLM1. UNCONSTRAINED (NULL) MODEL

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.74	0.62	7.59	33	<.001

Random Effect	SD	Var. Comp.	df	$\chi2$	p-value
level-2***	3.54	12.55	33	526.26	<.001
level-1	5.31	28.20			

Auxiliary Statistics	Reliability Est.	ICC	AIC		
	0.92	0.31	8440		

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this unconstrained model reveal two primary findings. First, the Chi-square test ($\chi^2 = 526.26139$, df = 33, $p < 0.001$) shows that the variance (τ) was significantly different from zero. This indicates that POC scores did vary significantly among MSW programs, therefore providing statistical justification for running subsequent phases of this HLM analysis, as described below. Second, the results indicate an ICC of .31. Thus 31% of the variance in POC scores occured between MSW programs and 69% of the variance occured within programs. It is also important to note that this model reveals that the within-program mean score for POC in this sample of programs was 4.19 on a scale from -21 to 21. And finally, the AIC of 8440 provided a value to be compared to the AIC values of subsequent models.

Random Intercepts Models

Main effects of participant status on POC scores. The first random intercept model provided information about the relationship between faculty/student status and perceptions of organizational LGBT-competence. The model included only one level-1 predictor variable,

participant (faculty or student), so as to examine the main effects of faculty/student status on

POC scores. The equation representing the level-1 model is

$$POC_{ij} = \beta_{0j} + \beta_{1j}*(PARTICIPANT_{ij}) + r_{ij}$$

$$\text{Var}(R) = \sigma^2 \text{ and } \log(\sigma^2) = \alpha_0 + \alpha_1(PARTICPANT)$$

The level-2 model is

$$\beta_{0j} = \gamma_{00} + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$

where *POC* represents the outcome variable, *PARTICIPANT* refers to faculty (=1) or student (=0)

status and is the only level-1 predictor, β_{1j} is the regression coefficient for school *j*, associated

with *PARTICIPANT* status, r_{ij} is an error term to describe the unique effect of each participant,

and the Var(R) term indicates the use of a heterogeneous model where distribution of errors was

allowed to change as a function of *PARTICIPANT*. There are no level-2 predictors in this model.

Results of this model show modeling within-program variances as heterogeneous was

superior to a homogenous model ($\chi^2 = 4.30$, df = 1, $p = 0.04$). Table IX reports the primary

results of this heterogeneous model, including a regression coefficient testing the relationship of

participant status to POC, a reliability estimate, an estimate of effect size, and a calculation of

AIC. The estimated effect size is the variance (r^2) in POC explained by faculty/student status.

TABLE IX. HLM1. MAIN EFFECTS OF PARTICIPANT STATUS ON POC

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.193	0.63	6.68	33	<.001
Participant***	2.756	0.38	7.19	1316	<.001

Auxiliary Statistics	Reliability Est.	r^2	AIC	
	0.93	0.04	8389	

* = significant at .05; ** = significant at .01; *** = significant at .001

These results indicate the regression coefficient relating faculty/student status to POC was positive and statistically significant ($b = 2.76$, $p < .001$). Faculty members on average had POC scores 2.76 points higher than students from the same program. Furthermore, the r^2 of .04 indicates participant status accounted for 4% of the variance in POC scores accounted for at level-1. The AIC value of 8389 suggests this model was superior to the unconstrained model.

Addition of level-1 and level-2 covariates. Next, a series of individual-level and organizational-level factors were added to the model to examine the relationship between faculty/student status and POC while controlling for level-1 and level-2 covariates. This phase of analysis intended to control for director perceptions of their program's organizational LGBT-competence, as well as program characteristics including program auspice and region, and individual characteristics including sexual orientation, gender identity, race, religion, and age. The level-1 model is

$$POC_{ij} = \beta_{0j} + \beta_{1j}*(PARTICIPANT) + \beta_{2j}*(LESBIAN_{ij}) + \beta_{3j}*(GAY_{ij}) + \beta_{4j}*(BISEXUAL_{ij})$$
$$+ \beta_{5j}*(DONTLABEL_{ij}) + \beta_{6j}*(OTHERSEX_{ij}) + \beta_{7j}*(TRANSOTHER_{ij}) + \beta_{8j}*(FEMALE_{ij})$$
$$+ \beta_{9j}*(ASIAN_{ij}) + \beta_{10j}*(BLACK_{ij}) + \beta_{11j}*(LATINO_{ij}) + \beta_{12j}*(PINA_{ij}) + \beta_{13j}*(RACEOTHER_{ij})$$
$$+ \beta_{14j}*(NOTRELIG_{ij}) + \beta_{15j}*(MUSLIM_{ij}) + \beta_{16j}*(HINDU_{ij}) + \beta_{17j}*(BUDDHIST_{ij})$$
$$+ \beta_{18j}*(JEWISH_{ij}) + \beta_{19j}*(OTHERREL_{ij}) + \beta_{20j}*(AGE_{ij}) + r_{ij}$$

$$Var(R) = \sigma^2 \text{ and } \log(\sigma^2) = \alpha_0 + \alpha_1(PARTICIPANT) + \alpha_2(LESBIAN) + \alpha_3(GAY) +$$
$$\alpha_4(BISEXUAL) + \alpha_5(DONTLABE) + \alpha_6(OTHERSEX) + \alpha_7(TRANSOTHER) + \alpha_8(FEMALE) +$$
$$\alpha_9(ASIAN) + \alpha_{10}(BLACK) + \alpha_{11}(LATINO) + \alpha_{12}(PINA) + \alpha_{13}(RACEOTHER) +$$
$$\alpha_{14}(NOTRELIG) + \alpha_{15}(MUSLIM) + \alpha_{16}(HINDU) + \alpha_{17}(BUDDHIST) + \alpha_{18}(JEWISH) +$$
$$\alpha_{19}(OTHERREL)$$

The level-2 model is

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(DOC_j) + \gamma_{02}*(PUBLIC_j) + \gamma_{03}*(NONSECTA_j) + \gamma_{04}*(NORTHEAS_j)$$
$$+ \gamma_{05}*(MIDWEST_j) + \gamma_{06}*(WEST_j) + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
$$\beta_{3j} = \gamma_{30}$$
$$\beta_{4j} = \gamma_{40}$$
$$\beta_{5j} = \gamma_{50}$$
$$\beta_{6j} = \gamma_{60}$$
$$\beta_{7j} = \gamma_{70}$$
$$\beta_{8j} = \gamma_{80}$$
$$\beta_{9j} = \gamma_{90}$$
$$\beta_{10j} = \gamma_{100}$$
$$\beta_{11j} = \gamma_{110}$$
$$\beta_{12j} = \gamma_{120}$$
$$\beta_{13j} = \gamma_{130}$$
$$\beta_{14j} = \gamma_{140}$$
$$\beta_{15j} = \gamma_{150}$$
$$\beta_{16j} = \gamma_{160}$$
$$\beta_{17j} = \gamma_{170}$$
$$\beta_{18j} = \gamma_{180}$$
$$\beta_{19j} = \gamma_{190}$$
$$\beta_{20j} = \gamma_{200}$$

where *POC* represents scores for the outcome variable, participant-perceived organizational

LGBT-competence, *PARTICIPANT* refers to faculty (=1) or student (=0) status, *LESBIAN (=1),*

GAY (=1), BISEXUAL (=1), DONTLABEL (=1), and OTHERSEX (=1) refer to 5 dummy-coded

variables representing sexual orientation (compared to heterosexual), *TRANSOTHER (=1),* and

FEMALE (=1) refer to 2 dummy-coded variables representing gender identity (compared to

male), *ASIAN (=1), BLACK (=1), LATINO (=1), PINA (=1), RACEOTHER (=1)* refer to 5

dummy-coded variables representing race (compared to White), *NOTRELIG (=1), MUSLIM*

(=1), HINDU (=1), BUDDIST (=1), JEWISH (=1), OTHERREL (=1) refer to 6 dummy-coded

variables representing religion (compared to Christian/Catholic), *AGE* refers to a single

continuous group-centered variable representing a participant's age, and r_{ij} is an error term to

describe the unique effect of each participant. The Var(R) term indicates the use of a

heterogeneous model where distribution of errors was allowed to change as a function of all

level-1 predictor variables (except age*).* The subscript *j* suggests the values for the coefficients

changes depending on program-level variables. Thus, the *β* coefficients in the Level-1 model

can be seen as outcome variables in the Level-2 model.

This model also included the addition of level-2 predictors, where *DOC* refers to a MSW

program director's grand-mean centered score of their program's organizational LGBT-

competence, *PUBLIC (=1), NONCSECTA (=1)* refer to 2 dummy-coded variables representing a

program's auspice (compared to sectarian), and *NORTHEAS (=1), MIDWEST (=1), WEST (=1)*

refer to 3 dummy-coded variables representing a program's region (compared to South).

In this analysis, the heterogeneous model of within-program variances was again superior

to a homogenous model ($\chi^2 = 48.10$, df = 19, $p < 0.01$). Table X shows selected results of this

heterogeneous model, including a level-1 regression coefficient testing the relationship of

participant status and lesbian sexual orientation to POC, level-2 regression coefficients testing

the relationship of DOC scores and organizational auspice to POC, and a calculation of this

model's AIC.

TABLE X. HLM1. SIGNIFICANT LEVEL-1 AND LEVEL-2 PREDICTORS OF POC

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Level-2					
DOC***	0.35	0.08	4.33	27	<.001
Auspice[1]					
Public**	3.64	1.38	2.64	27	0.01
Nonsectarian*	3.52	1.49	2.36	27	0.03
Level-1					
Participant***	2.58	0.51	5.03	1185	<.001
Sexual Orientation[2]					
Lesbian***	-2.69	0.78	-3.44	1185	<.001

Auxiliary Statistics	Reliability Est.	AIC
	0.86	7616.00

[1]Compared to sectarian; [2]Compared to heterosexual

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this random intercept model with level-1 and level-2 predictors reveals the regression coefficient relating participant status to POC remained positive and statistically significant ($b = 2.58$, $p < .001$). Therefore faculty members on average still had POC scores 2.58 higher than students from the same program after controlling for individual-level demographic covariates and organizational-level program covariates. Additionally, the regression coefficient relating lesbian status to POC scores was also statistically significant but negative ($b = -2.69$, $p < .001$). This indicates faculty and students who identified as lesbian had different POC scores compared to heterosexuals, and that lesbians on average scored their program's POC 2.69 points lower than heterosexual participants from within the same program.

With regards to the addition of predictors at level-2, the regression coefficient relating DOC scores to POC scores was positive and statistically significant ($b = .35$, $p < .001$), meaning

that faculty/student perceptions of the LGBT-competence of their program were higher in

programs with directors who also rated their program's LGBT-competence higher (relative to

programs with lower DOC). Furthermore, both the regression coefficient relating public MSW

programs ($b = 3.64$, $p = .01$) and nonsectarian MSW programs ($b = 3.52$, $p < .03$) to POC scores

were positive and statistically significant. This indicates that on average public programs and

nonsectarian programs had POC scores 3.64 and 3.52 points higher, respectively, than sectarian

programs after controlling for level-1 and level-2 covariates. Covariates related to program

region were not statistically significant. And finally, the AIC value of 7616 indicates that this

model was better fit to the data than the previous random intercept model.

Post-Hoc Analysis

A post-hoc analysis was conducted to examine if program directors' perceptions of their

program's LGBT-competence (DOC) were significantly different from faculty members

perceptions (POC). This analysis treated program director perceptions as level-1 data, and it

excluded student data. Thus, program director perceptions were modeled at the same level as

faculty perceptions (both referred to as POC in this analysis). Using this data, a random intercept

model with level-1 and level-2 predictors was then examined. The equation representing the

level-1 model is

$$POC_{ij} = \beta_{0j} + r_{ij}$$

and the level-2 model is

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(PUBLIC_j) + \gamma_{02}*(NONSECTA_j) + \gamma_{03}*(NORTHEAS_j)$$
$$+ \gamma_{04}*(MIDWEST_j) + \gamma_{05}*(WEST_j) + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$

where *POC* represents scores for the outcome variable, participant-perceived organizational

LGBT-competence, *PARTICIPANT* refers to faculty (=1) or program director (=0) status. This

model also included level-2 covariates, where *PUBLIC (=1), NONCSECTA (=1)* refer to 2

dummy-coded variables representing a program's auspice (compared to sectarian), and

NORTHEAS (=1), MIDWEST (=1), WEST (=1) refer to 3 dummy-coded variables representing a

program's region (compared to South).

Table XI shows the primary result of this model through a regression coefficient testing

the relationship of participant status to POC. This result indicates program director or faculty

member status in this analysis was significantly related to POC scores, even after controlling for

organizational level covariates related to program auspice and region. Specifically, MSW

program directors on average scored the LGBT-competence of their program 1.76 points higher

than faculty members from within the same program.

TABLE XI. HLM 1. DIFFERENCE BETWEEN FACULTY/DIRECTOR PERCEPTIONS

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Level-1					
Participant[1]*	-1.76	0.83	-2.13	241	0.03

[1]Faculty or program director; [2]Compared to heterosexual

* = significant at .05; ** = significant at .01; *** = significant at .001

2. __HLM 2__

The purpose of this second HLM analysis was to test the relationship between

organizational-level factors of MSW programs and individual-level LGB-competence of students

within these programs. To do so this analysis examined two measures of organizational LGBT-

competence (level-2 predictor variables) for their association with SOCCS scores (level-1

outcome variable), after controlling for individual and organizational-level contexts. Model

testing proceeded in 3 phases: an unconstrained intercept-only (null) model, means-as-outcomes

models, and a random intercepts model. A total of 4 models were tested in this HLM analysis.

    Unconstrained Model. This unconstrained model provided information about the

variability of student's self-perceived LGB-competence (SOCCS) at both the individual (level-1)

and organizational (level-2) levels. The model did not include any level-1 or level-2 predictor

variables, thus the main task of this phase of analysis was to examine whether the variance of

SOCCS scores across MSW programs (τ) is statistically significantly different from zero or not.

The equation representing the level-1 model is

$$SOCCS_{ij} = \beta_{0j} + r_{ij}$$

and the level-2 model is

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

where *SOCCS* represents scores in the outcome variable, student self-perceived competence with

LGB groups, β_{0j} is the intercept, or mean for MSW program *j*, at level-1, γ_{00} is the grand mean

outcome, and the error terms r_{ij} and u_{0j} respectively represent the individual and organizational-

level random effects.

    Table XII shows the results of this model, including estimates of the grand program

mean, the variance τ (random effect), the Interclass Correlation (ICC), a calculation of AIC, and

a reliability estimate. The results of this unconstrained model reveal two primary findings. First,

the Chi-square test ($\chi^2 = 80.39206$, df = 33, p < .001) showed that the variance (τ) was

significantly different from zero.

TABLE XII. HLM2. UNCONSTRAINED (NULL) MODEL

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.84	0.04	134.45	33	<.001

Random Effect	SD	Var. Comp.	df	$\chi 2$	*p*-value
level-2***	0.16	0.02	33	80.39	<0.001
level-1	0.68	0.46			

Auxiliary Statistics	Reliability Est.	ICC	AIC		
	0.54	0.05	2195		

* = significant at .05; ** = significant at .01; *** = significant at .001

This indicates that SOCCS scores did vary significantly among MSW programs, and therefore

provided statistical justification for running subsequent phases of this HLM analysis as described

below. Second, the results indicate an ICC of .05. Thus 5% of the variance in SOCCS scores

occured between MSW programs (organizational-level) and 95% of the variance occured within

a given program (individual-level). The AIC of 2195 can be compared to AIC values of

subsequent models to determine better-fit models.

Means-as-Outcomes Models

Main effects of DOC on SOCCS scores. The first means-as-outcomes model provided

information about the relationship between the organizational LGBT-competence of a MSW

program and student self-perceived LGB-competence (SOCCS), using perceptions of MSW

program directors (DOC) as the measure of organizational LGBT-competence. The model

included only one level-2 predictor variable, DOC, so as to examine the main effects of this

measure of organizational LGBT-competence on SOCCS scores. The equation representing the

level-1 model is

$$SOCCS_{ij} = \beta_{0j} + r_{ij}$$

The level-2 model is

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(DOC_j) + u_{0j}$$

where *SOCCS* represents the outcome variable, *DOC* refers to director-perceived organizational

LGBT-competence and is the only level-2 predictor, γ_{01} is the regression coefficient associated

with the *DOC* score of school *j*, r_{ij} is an error term to describe the unique effect of each

participant. There are no level-1 predictors in this model.

Table XIII shows the primary results of this model, including a regression coefficient

testing the relationship of DOC to SOCCS, an estimate of effect size, and a calculation of AIC.

The estimated effect size is the variance (r^2) in SOCCS explained by DOC scores.

TABLE XIII. HLM 2. MAIN EFFECTS OF DOC ON SOCCS

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.84	0.03	150.48	32	<.001
DOC*	0.01	0.01	2.33	32	0.03

Auxiliary Statistics	Reliability Est.	r^2	AIC		
	0.51	0.14	2196		

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this model indicate the regression coefficient relating DOC to SOCCS scores was positive and statistically significant ($b = .01$, $p = .03$). MSW programs with directors who rated their program's LGBT-competence higher (relative to those who rated their program lower) also had students who felt more competent with LGB groups. Furthermore, the r^2 of .14 indicates DOC scores explains 14% of the variance in SOCCS accounted for at level-2 of this model. However, the AIC value of 2196 indicates that modeling DOC as a predictor of SOCCS does not result in a better-fit model than the unconstrained model.

Main effects of AggPOC on SOCCS scores. The second means-as-outcomes model provided information about the relationship between the organizational LGBT-competence of a MSW program and student self-perceived LGB-competence (SOCCS), using aggregated perceptions of faculty and students from a given program (AggPOC) as the measure of organizational LGBT-competence. The model included only one level-2 predictor variable, AggPOC, so as to examine the main effects of this measure of organizational LGBT-competence on SOCCS scores. The equation representing the level-1 model is

$$SOCCS_{ij} = \beta_{0j} + r_{ij}$$

The level-2 model is

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(AggPOC_j) + u_{0j}$$

where *SOCCS* represents the outcome variable, *AggPOC* refers to an aggregate of faculty/student perceptions of organizational LGBT-competence from a given program, and is the only level-2 predictor, γ_{01} is the regression coefficient associated with the *AggPOC* score of school j, and r_{ij} and u_{0j} are error terms at level-1 and level-2, respectively. There are no level-1 predictors in this model.

Table XIV shows the primary results of this model, including a regression coefficient testing the relationship of AggPOC to SOCCS, an estimate of effect size, and a calculation of AIC. The estimated effect size is the variance (r^2) in SOCCS explained by AggPOC scores.

TABLE XIV. HLM2. MAIN EFFECTS OF AggPOC ON SOCCS

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.82	0.03	187.35	32	<0.001
AggPOC***	0.04	0.01	7.75	32	<0.001

Auxiliary Statistics	Reliability Est.	r^2	AIC	
	0.31	0.68	2182	

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this model indicate the regression coefficient relating AggPOC to SOCCS scores was positive and statistically significant ($b = .04$, $p < .001$). MSW programs with faculty and students who rated their program's LGBT-competence higher (relative to those who rated their program lower) also had students who feel more competent with LGB groups. Most importantly, the r^2 of .68 indicates AggPOC scores explained 68% of variance in SOCCS accounted for at level-2 of this model. This reveals aggregated faculty/student perceptions of a program's LGBT-competence accounted for much more of the variance in student's LGB-competence (compared to director perceptions), and thus suggests this variable was a stronger predictor of individual-level LGBT-competence. And finally, the AIC value of 2182 provides further evidence that this model was superior to the previous means-as-outcomes model.

Random intercepts model with level-1 and level-2 predictors (full model). This random intercepts model included both DOC and AggPOC to further examine these two measures of organizational LGBT-competence as predictors of SOCCS when simultaneously included in a model. Variables representing demographic factors at level-1 and program factors at level-2 were also included to examine the relationship between organizational LGBT-competence and SOCCS while controlling for individual-level covariates (sexual orientation, gender identity, race, religion, and age) and organizational-level covariates (auspice and region). The level-1 model is

$$SOCCS_{ij} = \beta_{0j} + \beta_{1j}*(LESBIAN_{ij}) + \beta_{2j}*(GAY_{ij}) + \beta_{3j}*(BISEXUAL_{ij}) + \beta_{4j}*(DONTLABE_{ij})$$
$$+ \beta_{5j}*(OTHERSEX_{ij}) + \beta_{6j}*(TRANSOTHER_{ij}) + \beta_{7j}*(FEMALE_{ij}) + \beta_{8j}*(ASIAN_{ij}) + \beta_{9j}*(BLACK_{ij})$$
$$+ \beta_{10j}*(LATINO_{ij}) + \beta_{11j}*(PINA_{ij}) + \beta_{12j}*(RACEOTHER_{ij}) + \beta_{13j}*(NOTRELIG_{ij})$$
$$+ \beta_{14j}*(MUSLIM_{ij}) + \beta_{15j}*(HINDU_{ij}) + \beta_{16j}*(BUDDHIST_{ij}) + \beta_{17j}*(JEWISH_{ij})$$
$$+ \beta_{18j}*(OTHERREL_{ij}) + \beta_{19j}*(AGE_{ij}) + r_{ij}$$

$$Var(R) = \sigma^2 \text{ and } \log(\sigma^2) = \alpha_0 + \alpha_1(LESBIAN) + \alpha_2(GAY) + \alpha_3(BISEXUAL) +$$
$$\alpha_4(DONTLABEL) + \alpha_5(OTHERSEX) + \alpha_6(TRANSOTHER) + \alpha_7(FEMALE) + \alpha_8(ASIAN) +$$
$$\alpha_9(BLACK) + \alpha_{10}(LATINO) + \alpha_{11}(PINA) + \alpha_{12}(RACEOTHER) + \alpha_{13}(NOTRELIG) +$$
$$\alpha_{14}(MUSLIM) + \alpha_{15}(HINDU) + \alpha_{16}(BUDDIST) + \alpha_{17}(JEWISH) + \alpha_{18}(OTHERREL)$$

And the level-2 model is

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(DOC_j) + \gamma_{02}*(AggPOC_j) + \gamma_{03}*(PUBLIC_j) + \gamma_{04}*(NONSECTA_j)$$
$$+ \gamma_{05}*(NORTHEAS_j) + \gamma_{06}*(MIDWEST_j) + \gamma_{07}*(WEST_j) + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
$$\beta_{3j} = \gamma_{30}$$
$$\beta_{4j} = \gamma_{40}$$
$$\beta_{5j} = \gamma_{50}$$
$$\beta_{6j} = \gamma_{60}$$
$$\beta_{7j} = \gamma_{70}$$
$$\beta_{8j} = \gamma_{80}$$
$$\beta_{9j} = \gamma_{90}$$
$$\beta_{10j} = \gamma_{100}$$
$$\beta_{11j} = \gamma_{110}$$
$$\beta_{12j} = \gamma_{120}$$
$$\beta_{13j} = \gamma_{130}$$

$$\beta_{14j} = \gamma_{140}$$
$$\beta_{15j} = \gamma_{150}$$
$$\beta_{16j} = \gamma_{160}$$
$$\beta_{17j} = \gamma_{170}$$
$$\beta_{18j} = \gamma_{180}$$
$$\beta_{19j} = \gamma_{190}$$

where, at level-1, *SOCCS* represents scores for the outcome variable, *LESBIAN (=1), GAY (=1), BISEXUAL (=1), DONTLABEL (=1), and OTHERSEX (=1)* refer to 5 dummy-coded variables representing sexual orientation (compared to heterosexual), *TRANSOTHER (=1),* and *FEMALE (=1)* refer to 2 dummy-coded variables representing gender identity (compared to male), *ASIAN (=1), BLACK (=1), LATINO (=1), PINA (=1), RACEOTHER (=1)* refer to 5 dummy-coded variables representing race (compared to White), *NOTRELIG (=1), MUSLIM (=1), HINDU (=1), BUDDHIST (=1), JEWISH (=1), OTHERREL (=1)* refer to 6 dummy-coded variables representing religion (compared to Christian/Catholic), *AGE* refers to a single continuous group-centered variable representing a participant's age, and r_{ij} is an error term to describe the unique effect of each participant. The Var(R) term indicates the use of a heterogeneous model where distribution of errors were allowed to change as a function of all level-1 predictor variables (except *AGE).* At level-2, *DOC* refers to a director-perceived organizational LGBT-competence (grand-mean centered), *AggPOC* refers to aggregated faculty/student perceptions of their program's organizational LGBT-competence (grand-mean centered), *PUBLIC (=1), NONCSECTA (=1)* refer to 2 dummy-coded variables representing a program's auspice (compared to sectarian), and *NORTHEAS (=1), MIDWEST (=1), WEST (=1)* refer to 3 dummy-coded variables representing a program's region (compared to South).

The results of this analysis reveal modeling heterogeneous within-program variances was again superior to a homogenous model ($\chi^2 = 15.09$, df = 7, p = 0.04). Table XV shows the primary results of this heterogeneous model, including level-2 regression coefficients testing the

TABLE XV. HLM2. FULL RANDOM INTERCEPT MODEL

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Level-2					
Program mean***	4.69	0.10	48.36	26	<0.001
DOC	0.00	0.01	0.20	26	0.84
AggPOC***	0.03	0.01	5.22	26	<0.001
Auspice[1]					
Public	0.06	0.05	1.33	26	0.20
Nonsectarian	0.08	0.06	1.24	26	0.23
Region[2]					
Northeast	-0.07	0.08	-0.95	26	0.35
Midwest	-0.01	0.08	-0.07	26	0.95
West	-0.04	0.09	-0.38	26	0.71
Level-1					
Age	0.00	0.00	0.97	970	0.33
Sexual Orientation[3]					
Lesbian***	0.46	0.12	3.68	970	<0.001
Gay***	0.72	0.11	6.59	970	<0.001
Bisexual**	0.28	0.09	3.06	970	0.00
Don't label	0.14	0.11	1.26	970	0.21
Other***	0.55	0.09	5.85	970	<0.001
Gender Identity[4]					
Female	0.00	0.07	-0.05	970	0.96
Trans/other*	0.21	0.10	2.08	970	0.04
Race[5]					
Black*	-0.23	0.11	-2.08	970	0.04
Asian	-0.38	0.13	-1.16	970	0.25
Latino***	-0.15	0.04	-3.54	970	<0.001
P.I./N.A.[a]	-0.29	0.27	-1.08	970	0.28
Other	0.03	0.09	0.36	970	0.72
Religion[6]					
Not religious***	0.15	0.03	4.42	970	<0.001
Muslim	-0.04	0.14	-0.25	970	0.80
Hindu***	1.06	0.12	8.72	970	<0.001
Buddhist***	0.48	0.12	3.95	970	<0.001
Jewish	0.01	0.07	0.07	970	0.95
Other*	0.18	0.08	2.24	969	0.03

Auxiliary Statistics	Reliability Est.	AIC
	0.22	2002

[1]Compared to sectarian; [2]Compared to South; [3]Compared to heterosexual

[4]Compared to male; [5]Compared to White; [6]Compared to Christian/Catholic

[a] Pacific Islander or Native American

* = significant at .05; ** = significant at .01; *** = significant at .001

relationship between DOC, AggPOC, and organizational-level covariates to SOCCS, level-1

coefficients testing the relationship of each level-1 demographic covariate to SOCCS, and a

calculation of AIC for model comparison.

These results indicate the coefficient relating DOC to SOCCS was no longer statistically

significant ($b = .001$, $p = .841$) in this model, while the coefficient relating AggPOC to SOCCS

remained statistically significant ($b = .031$, $p < .001$). Thus, when director-perceived and

aggregated faculty/student-perceived organizational LGBT-competence were included in the

same model, director perceptions of their program no longer served as a good predictor of

student LGB-competence. In contrast, aggregated faculty/student perceptions of their program's

organizational LGBT-competence did appear to be a strong predictor of student LGB-

competence, such that programs with higher aggregated faculty/student perceptions of their

program (compared to those with lower) also had students who felt more competent with LGB

groups. No other level-2 covariates were statistically significant predictors of student LGB-

competence. Additionally, there were a number of significant level-1 demographic predictors of

student LGB-competence in this model. With regards to sexual orientation, on average students

who identified as lesbian ($b = .459$, $p < .001$), gay ($b = .720$, $p < .001$), bisexual ($b = .282$, $p = .002$), or "other" ($b = .549$, $p < .001$) all had significantly higher SOCCS scores compared to

heterosexual students from the same program. As for gender identity, students who identified as

transgender or "other" ($b = .210$, $p = .038$) on average had higher SOCCS scores than those who

identified as male.

Concerning race, those students that identified as Black ($b = -.234$, $p = .037$) or Latino ($b = -.147$, $p < .001$) on average had significant lower SOCCS scores compared to students from the

same program that identified as White. And finally, students who identified as not religious ($b =$

.152, $p < .001$), Hindu ($b = 1.063$, $p < .001$), or Buddhist ($b = .484$, $p < .001$) on average all had

significantly higher SOCCS scores compared to Christians/Catholics. No other individual-level

covariate in this model was statistically significant. The AIC of 2002 indicates this full random

coefficients model was superior to the previous model.

3. HLM 3

The purpose of this analysis was to test the relationship between organizational-level

factors of MSW programs and individual-level transgender-competence of students within these

programs. To do so this analysis examined two measures of organizational LGBT-competence

(level-2 predictor variables) for their association with GICS scores (level-1 outcome variable),

after controlling for individual and organizational-level contexts. Model testing proceeded in 3

phases: an unconstrained intercept-only (null) model, means-as-outcomes models, and a random

intercepts model. A total of 4 models were tested in this HLM analysis.

Unconstrained model. This unconstrained model provided information about the

variability of student's self-perceived transgender competence (GICS) at both the individual

(level-1) and organizational (level-2) levels. The model does not include any level-1 or level-2

predictor variables, thus the main task of this phase of analysis was to examine whether the

variance of GICS scores across MSW programs (τ) was statistically significantly different from

zero or not.   The equation representing the level-1 model is

$$GICS_{ij} = \beta_{0j} + r_{ij}$$

and the level-2 model is

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

where *GICS* represents scores in the outcome variable, student self-perceived competence with

transgender groups (transgender-competence), β_{0j} is the intercept, or mean for MSW program *j*,

at level-1, γ_{00} is the grand mean outcome, and the error terms r_{ij} and u_{0j} respectively represent the individual and organizational-level random effects.

Table XVI shows the results of this model, including estimates of grand program mean, the variance τ (random effect), the Interclass Correlation (ICC), a calculation of AIC, and a reliability estimate.

TABLE XVI. HLM3. UNCONSTRAINED (NULL) MODEL

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.68	0.04	118.87	33	<0.001

Random Effect	SD	Var. Comp.	df	χ2	p-value
level-2***	0.18	0.03	33	83.99	<0.001
level-1	0.71	0.51			

Auxiliary Statistics	Reliability Est.	ICC	AIC
	0.58	0.06	2287

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this unconstrained model reveal two primary findings. First, the Chi-square test ($\chi^2 = 83.993$, df $= 33$, $p < 0.001$) shows that the variance (τ) was significantly different from zero. This indicates that GICS scores did vary significantly among MSW programs, therefore providing statistical justification for running subsequent phases of this HLM analysis. Second, the results indicate an ICC of .06. Thus 6% of the variance in GICS scores occured between

MSW programs (level-2) and 94% of the variance occured within a given program (level-1).

And finally, the AIC value of 2287 can be compared to AIC values of subsequent models.

Means-as-outcomes models

Main effects of DOC on GICS scores. The first means-as-outcomes model provided

information about the relationship between organizational LGBT-competence of a MSW

program and student's self-perceived transgender-competence (GICS), using perceptions of

MSW program directors (DOC) as the measure of organizational LGBT-competence. The

model included only one level-2 predictor variable, DOC, so as to examine the main effects of

this measure of organizational LGBT-competence on GICS scores. The equation representing

the level-1 model is

$$GICS_{ij} = \beta_{0j} + r_{ij}$$

The level-2 model is

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(DOC_j) + u_{0j}$$

where *GICS* represents the outcome variable, *DOC* refers to director-perceived organizational

LGBT-competence and is the only level-2 predictor, γ_{01} is the regression coefficient associated

with the *DOC* score of school *j*, and r_{ij} and u_{0j} refer to error terms at level-1 and level-2,

respectively. There are no level-1 predictors in this model.

Table XVII shows the results of this model, including a regression coefficient testing the

relationship of DOC to GICS, an estimate of effect size, a reliability estimate, and a calculation

of AIC. The estimated effect size is the variance (r^2) in GICS explained by DOC scores.

TABLE XVII. HLM2. MAIN EFFECTS OF DOC ON GICS

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.67	0.04	128.11	32	<.001
DOC*	0.01	0.01	2.15	32	0.04
Auxiliary Statistics	Reliability Est.	r^2	AIC		
	0.52	0.21	2280		

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this model indicate the regression coefficient relating DOC to GICS scores was positive and statistically significant ($b = .014$, $p = .039$). MSW programs with directors who rate their program's LGBT-competence higher (relative to those who rated their program lower) also had students who feel more competent with transgender groups. Furthermore, the r^2 of .21 indicates DOC accounts for 21% of variance in GICS accounted for at level-2 of this model. The AIC of 2280 indicates that this model was better-fit to the data than the unconstrained model.

Main effects of AggPOC on GICS scores. The second means-as-outcomes model provided information about the relationship between the organizational LGBT-competence of a MSW program and student self-perceived transgender-competence (GICS), using aggregated perceptions of faculty and students from a given program (AggPOC) as the measure of organizational LGBT-competence. The model included only one level-2 predictor variable,

AggPOC, so as to examine the main effects of this measure of organizational LGBT-competence

on GICS scores. The equation representing the level-1 model was

$$GICS_{ij} = \beta_{0j} + r_{ij}$$

The level-2 model was

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(AggPOC_j) + u_{0j}$$

where *GICS* represents the outcome variable, *AggPOC* refers to an aggregate of faculty/student

perceptions of organizational LGBT-competence from a given program, and is the only level-2

predictor, γ_{01} is the regression coefficient associated with the *AggPOC* score of school *j*, and

r_{ij} and u_{0j} refer to error terms at level-1 and level-2, respectively. There are no level-1 predictors

in this model.

Table XVIII shows the results of this model, including a regression coefficient testing the

relationship of AggPOC to SOCCS, an estimate of effect size, and a calculation of AIC. The

estimated effect size is the variance (r^2) in SOCCS explained by AggPOC scores.

TABLE XVIII. HLM3. MAIN EFFECTS OF AggPOC ON GICS

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Program mean***	4.66	0.03	155.89	32	<0.001
AggPOC***	0.04	0.01	6.80	32	<0.001
Auxiliary Statistics	Reliability Est.	r^2	AIC		
	0.36	0.63	2268		

* = significant at .05; ** = significant at .01; *** = significant at .001

The results of this model indicate the regression coefficient relating AggPOC to SOCCS scores was positive and statistically significant ($b = .04$, $p < .001$). MSW programs with faculty and students who rated their program's LGBT-competence higher (relative to those who rated their program lower) also had students who feel more competent with transgender groups. Most importantly, the r^2 of .63 indicates AggPOC scores accounted for 63% of variance in SOCCS accounted for at level-2 of this model. This suggests aggregated faculty/student perceptions (compared to director perceptions) of a given program's LGBT-competence was a stronger predictor of student's competence with transgender people. Furthermore, the AIC value of 2268 indicates that this model was superior to the previous means-as-outcomes model.

Random Intercepts Model with Level-1 and Level-2 predictors (full model).

This random intercepts model included both DOC and AggPOC to further examine these two measures of organizational LGBT-competence as predictors of GICS when simultaneously included in a model. Variables representing demographic factors at level-1 and program factors at level-2 were also included to examine the relationship between organizational LGBT-competence and SOCCS while controlling for individual-level covariates (sexual orientation, gender identity, race, religion, and age) and organizational-level covariates (auspice and region). The level-1 model was

$$GICS_{ij} = \beta_{0j} + \beta_{1j}*(LESBIAN_{ij}) + \beta_{2j}*(GAY_{ij}) + \beta_{3j}*(BISEXUAL_{ij}) + \beta_{4j}*(DONTLABEL_{ij})$$
$$+ \beta_{5j}*(OTHERSEX_{ij}) + \beta_{6j}*(TRANSOTHER_{ij}) + \beta_{7j}*(FEMALE_{ij}) + \beta_{8j}*(ASIAN_{ij}) + \beta_{9j}*(BLACK_{ij})$$
$$+ \beta_{10j}*(LATINO_{ij}) + \beta_{11j}*(PINA_{ij}) + \beta_{12j}*(RACEOTHER_{ij}) + \beta_{13j}*(NOTRELIG_{ij})$$
$$+ \beta_{14j}*(MUSLIM_{ij}) + \beta_{15j}*(HINDU_{ij}) + \beta_{16j}*(BUDDHIST_{ij}) + \beta_{17j}*(JEWISH_{ij})$$
$$+ \beta_{18j}*(OTHERREL_{ij}) + \beta_{19j}*(AGE_{ij}) + r_{ij}$$

$$Var(R) = \sigma^2 \text{ and } \log(\sigma^2) = \alpha_0 + \alpha_1(LESBIAN) + \alpha_2(GAY) + \alpha_3(BISEXUAL) +$$
$$\alpha_4(DONTLABEL) + \alpha_5(OTHERSEX) + \alpha_6(TRANSOTHER) + \alpha_7(FEMALE) + \alpha_8(ASIAN) +$$
$$\alpha_9(BLACK) + \alpha_{10}(LATINO) + \alpha_{11}(PINA) + \alpha_{12}(RACEOTHER) + \alpha_{13}(NOTRELIG) +$$
$$\alpha_{14}(MUSLIM) + \alpha_{15}(HINDU) + \alpha_{16}(BUDDHIST) + \alpha_{17}(JEWISH) + \alpha_{17}(OTHERREL)$$

And the level-2 model was

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(DOC_j) + \gamma_{02}*(AggPOC_j) + \gamma_{03}*(PUBLIC_j) + \gamma_{04}*(NONSECTA_j)$$
$$+ \gamma_{05}*(NORTHEAS_j) + \gamma_{06}*(MIDWEST_j) + \gamma_{07}*(WEST_j) + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
$$\beta_{3j} = \gamma_{30}$$
$$\beta_{4j} = \gamma_{40}$$
$$\beta_{5j} = \gamma_{50}$$
$$\beta_{6j} = \gamma_{60}$$
$$\beta_{7j} = \gamma_{70}$$
$$\beta_{8j} = \gamma_{80}$$
$$\beta_{9j} = \gamma_{90}$$
$$\beta_{10j} = \gamma_{100}$$
$$\beta_{11j} = \gamma_{110}$$
$$\beta_{12j} = \gamma_{120}$$
$$\beta_{13j} = \gamma_{130}$$
$$\beta_{14j} = \gamma_{140}$$
$$\beta_{15j} = \gamma_{150}$$
$$\beta_{16j} = \gamma_{160}$$
$$\beta_{17j} = \gamma_{170}$$
$$\beta_{18j} = \gamma_{180}$$
$$\beta_{19j} = \gamma_{190}$$

where, at level-1, *GICS* represents scores for the outcome variable, *LESBIAN (=1), GAY (=1), BISEXUAL (=1), DONTLABEL (=1), and OTHERSEX (=1)* refer to 5 dummy-coded variables representing sexual orientation (compared to heterosexual), *TRANSOTHER (=1),* and *FEMALE (=1)* refer to 2 dummy-coded variables representing gender identity (compared to male), *ASIAN (=1), BLACK (=1), LATINO (=1), PINA (=1), RACEOTHER (=1)* refer to 5 dummy-coded variables representing race (compared to White), *NOTRELIG (=1), MUSLIM (=1), HINDU (=1), BUDDHIST (=1), JEWISH (=1), OTHERREL (=1)* refer to 6 dummy-coded variables representing religion, *AGE* refers to a single group-centered variable representing a participant's age, and r_{ij} and u_{0j} refer to error terms at level-1 and level-2, respectively. The Var(R) term indicates the use of a heterogeneous model where distribution of errors was allowed to change as a function of all level-1 covariates (except *AGE).* At level-2, *DOC* refers to a director-perceived

organizational LGBT-competence (grand-mean centered), *AggPOC* refers to aggregated

faculty/student perceptions of their program's organizational LGBT-competence (grand-mean

centered), *PUBLIC (=1), NONCSECTA (=1)* refer to 2 dummy-coded variables representing a

program's auspice (compared to sectarian), and *NORTHEAS (=1), MIDWEST (=1), WEST (=1)*

refer to 3 dummy-coded variables representing a program's region (compared to South).

The results of this random intercept model reveal the use of the model with heterogeneous

within-program variances was better fit to the data than a homogenous model ($\chi^2 = 20.11$, df = 7,

$p = .006$). Table XIX shows the results of this heterogeneous model including level-2 regression

coefficients testing the relationship between DOC, AggPOC, and each organizational-level

covariate to GICS, regression coefficients testing the relationship of each level-1 demographic

covariate to GICS, and a calculation of AIC for model comparison.

These results indicate the coefficient relating DOC to GICS was no longer statistically

significant ($b = .00$, $p = .892$) in this model, while the coefficient relating AggPOC to SOCCS

remained positive and statistically significant ($b = .03$, $p = .002$). Thus, when director-perceived

and aggregated faculty/student-perceived organizational LGBT-competence were included in the

same model, director perceptions of their program no longer served as a good predictor of

student transgender-competence. In contrast, aggregated faculty/student perceptions of their

program's organizational LGBT-competence did remain a strong predictor of student LGB-

competence, such that programs with higher aggregated faculty/student perceptions of their

program (compared to those with lower) also had students who feel more competent with

transgender people. No other level-2 covariates were revealed as statistically significant

predictors of student transgender-competence. There were also a number of significant level-1

demographic predictors of student transgender-competence in this model. With regards to sexual

TABLE XIX. HLM3. FULL RANDOM INTERCEPT MODEL

Fixed Effects	Coefficient	SE	t-ratio	df	p-value
Level-2					
Program mean***	4.53	0.09	51.82	26	<0.001
DOC	0.00	0.01	0.14	26	0.89
AggPOC**	0.03	0.01	3.45	26	0.00
Auspice[1]					
Public	0.05	0.06	0.82	26	0.42
Nonsectarian	0.00	0.07	0.05	26	0.96
Region[2]					
Northeast	-0.05	0.09	-0.59	26	0.56
Midwest	0.06	0.08	0.74	26	0.46
West	0.01	0.09	0.15	26	0.88
Level-1					
Age	0.00	0.00	1.44	970	0.15
Sexual Orientation[3]					
Lesbian*	0.30	0.14	2.15	970	0.03
Gay***	0.67	0.10	6.41	970	<0.001
Bisexual**	0.25	0.09	2.75	970	0.01
Don't label	0.18	0.10	1.80	970	0.07
Other***	0.59	0.10	6.08	970	<0.001
Gender Identity[4]					
Female	0.00	0.06	0.06	970	0.95
Trans/other	0.18	0.12	1.50	970	0.13
Race[5]					
Black	-0.19	0.11	-1.75	970	0.08
Asian	0.01	0.12	0.12	970	0.90
Latino**	-0.19	0.06	-3.18	970	0.00
P.I./N.A.[a]	-0.51	0.36	-1.40	970	0.16
Other	0.00	0.07	0.01	970	0.99
Religion[6]					
Not religious***	0.12	0.03	3.53	970	<0.001
Muslim	-0.10	0.22	-0.43	970	0.67
Hindu***	1.18	0.12	10.14	970	<0.001
Buddhist*	0.32	0.14	2.20	970	0.03
Jewish	0.05	0.09	0.55	970	0.59
Other*	0.22	0.09	2.49	969	0.01

Auxiliary Statistics	Reliability Est.	AIC			
	0.28	2135			

[1]Compared to sectarian; [2]Compared to South; [3]Compared to heterosexual

[4]Compared to male; [5]Compared to White; [6]Compared to Christian/Catholic

[a] Pacific Islander or Native American

* = significant at .05; ** = significant at .01; *** = significant at .001

orientation, on average students who identified as lesbian ($b = .302$, $p = .032$), gay ($b = .673$, $p < .001$), bisexual ($b = .254$, $p = .006$), or other ($b = .590$, $p < .001$) all had significantly higher SOCCS scores compared to their heterosexual counterparts. Concerning race, students that identified as Latino ($b = -.193$, $p = .002$) on average had significantly lower GICS scores compared to those identified as White. With regards to religion, students who identified as not religious ($b = .123$, $p < .001$), Hindu ($b = 1.177$, $p < .001$), or Buddhist ($b = .317$, $p = .028$) on average all had significantly higher GICS scores compared to Christians/Catholics. Interestingly, no covariates related to gender identity were statistically significant in this model. The AIC value of 2135 indicates this full random coefficients model was the best-fit model to the data tested in this HLM analysis.

CHAPTER V — DISCUSSION

This study was designed to provide new and valuable insight into the current state of support for lesbian, gay, bisexual, and transgender (LGBT) people and issues within social work education through an examination of organizational and individual-level LGBT-competence within a sample of MSW programs. More specifically, the main purposes of this study were to provide a comparison between faculty and student perspectives of the organizational LGBT-competence of their shared program, and an assessment of the relationship between a program's organizational LGBT-competence and the individual-level LGBT-competence of its students. Data from an internet-hosted survey were collected and analyzed at both organizational and individual levels. Organizational-level data consisted of a random sample of 34 accredited MSW programs in the United States, each represented by a single program director respondent. Individual-level data consisted of a sample of 242 faculty members and 1109 students drawn from within participating MSW programs. Program directors, faculty members, and students all provided an evaluation of their program's organizational LGBT-competence. Student participants provided information regarding their self-perceived professional competence with both sexual (LGB-competence) and gender (transgender-competence) minorities. Faculty and student participants also provided demographic information related to age, race/ethnicity, religion, sexual orientation, and gender identity.

Results of Hierarchical Linear Modeling Analyses (HLM) supported the hypothesis that faculty members perceived their program's LGBT-competence to be at a higher level than students from within the same program (H1). HLM analyses also supported the hypotheses that a program's LGBT-competence was significantly related to the LGB-competence (H2) and transgender-competence (H3) of its students, such that programs with higher levels of

perceived organizational LGBT-competence also had students with higher levels of LGB and transgender-competence. Tests confirming primary study hypotheses were significant even when controlling for salient organizational-level covariates (i.e., program auspice and region) and individual-level demographic characteristics (i.e., age, gender identity, race/ethnicity, sexual orientation, and religion). A summary and discussion of the major findings related to each primary research hypothesis are presented below, including notable results pertaining to organizational and individual-level covariates included in each HLM analysis. This summary is then followed by a discussion of the limitations, implications, and conclusions of this research.

A.   Summary and Discussion of Primary Results

(H1). After controlling for organizational and individual contexts, faculty perceptions of their organization's LGBT-competence will be higher than student perceptions.

Results from the first HLM analysis in this study (HLM 1) supported this hypothesis by first identifying the existence of significant between-program variation in organizational LGBT-competence as perceived by faculty and student participants (POC). The proportion of the total variance in POC scores that occurred between MSW programs was 31%, suggesting a large program effect on within-program perceptions of organizational LGBT-competence. The existence of this significant between-program variance was expected, as the outcome variable in this analysis was a measure of a program's organizational LGBT-competence. Thus it makes intuitive sense that values for this outcome would vary by MSW program. Furthermore, this analysis revealed the mean program POC score was 4.7 (on a scale from -21 to 21). With regards to the organizational policies, resources, structures, and course curricula measured by POC, this low average score can be interpreted in two ways. It could indicate many faculty and

student participants from the same program were unaware of many existing aspects of their MSW program representative of higher organizational LGBT-competence, and thus answered "I don't know" (scored as a 0) to many items used to calculate POC scores. It could also indicate that many faculty and student participants from the same program are aware that such organizational-level indicators of LGBT-competence do not exist within their program, and thus answered "no" (a score of -1) to many items used to calculate POC scores. These two interpretations are not mutually exclusive, as it is possible that faculty and students from one program might have low POC scores due to a lack of awareness, while faculty and students from another program might have low POC scores because their program actually lacks indicators of organizational LGBT-competence. This suggests the social work programs included in this study are either truly lacking many indicators of organizational support of LGBT people and issues, or at least are not conveying to their faculty members or students the extent of organizational-level activities intended to support sexual and gender minorities. Either way, the low program mean POC score identified in this study is congruent with previous research that argues MSW faculty and students feel organizational-level support of LGBT people or issues remains problematic within schools of social work (Dentato et al., 2013; Fredriksen-Goldsen et al., 2011; LaSala et al., 2008; Martin et al., 2009; Messinger, 2002).

Once significant between-program variance in POC scores was identified, this analysis then more directly addressed the first study hypotheses by revealing significant main effects of participant status (faculty or student) on POC scores. More specifically, faculty members on average scored the organizational LGBT-competence of their program 2.76 points higher than students from the same program. This finding provides preliminary evidence to confirm the first study hypothesis. Results also indicate faculty or student status accounted for 4% of individual-

level variance in POC scores. While this is a small effect size, it is worth noting that this effect

of participant status is due in part to the fact that there were far fewer faculty member (n = 242)

than student (n = 1109) participants in this study. Thus it seems possible that a greater balance

between the size of faculty and student participant groups would likely result in a larger effect

size related to participant status.

Subsequent analysis within HLM 1 further confirmed the first study hypothesis while

also including controls for organizational-level program contexts and individual-level

demographic characteristics. With the inclusion of all these covariates, significant differences

still remained between faculty and student POC scores such that faculty participants on average

had POC scores 2.58 points higher than students from the same program. Therefore, the results

of HLM 1 provide strong evidence to confirm the first study hypothesis that faculty members

rated the organizational LGBT-competence of their program significantly higher than students

from the same program, even when controlling for organizational and individual-level contexts.

So then, if these two groups have different perceptions of the LGBT-competence of their

shared program, which is the more accurate perception? The evaluation of program director-

perceptions (DOC), conceptually understood as experts in their program's organizational-level

qualities, was intended to provide some clarity on this question. However, as the post-hoc

analysis within HLM 1 shows, not only were there significant differences between faculty and

student perceptions of the organizational LGBT-competence of their shared program, but there

were also significant differences between program director and faculty perceptions. These

findings indicate that within a given program, on average program directors rated the LGBT-

competence of their program 1.76 points higher than faculty, who in turn were found to rate their

program 2.58 points higher than students. These varying levels of perceptions could reflect

differences in programmatic awareness, such that program directors (as administrative experts) are most aware, faculty members (as long-term organizational employees) are less aware, and students (as short-term consumers within schools of social work) are least aware, of their program's policies, resources, course content etc. If this is the case, it would seem that program director perceptions can be understood as the most accurate reflection of a program's existing organizational indicators of LGBT-competence. However, it could also be possible that as employees, administrative leaders and organizational representatives, both program directors and faculty members may reflect a positive bias towards their program in their perceptual ratings. If this is the case, student perceptions may actually represent a more accurate assessment of a program's organizational LGBT-competence. Unfortunately no other research exists that examines organizational cultural competence in social work educational context that includes perceptions of administrative, employee, and student groups, and so these results cannot be compared to other empirical data. Nevertheless, the results of the current study provide significant evidence to confirm that program directors, faculty members and students do not agree on the organizational LGBT-competence of their shared program.

Organizational and Individual-level Covariates. Organizational-level covariates in this study's first HLM analysis included; director-perceived organizational LGBT-competence (DOC), program auspice, and program region. Of these factors, director perceptions proved a significant predictor of POC scores. Programs with higher director-perceived organizational LGBT-competence also contained faculty/students with higher perceptions of their program's LGBT-competence. Interestingly, this result suggests that even though program directors, faculty members, and students within a program disagree about the level of their program's LGBT-competence, there is some congruence between within-program perceptions. Program

auspice was also a significant organizational-level factor, as both public and nonsectarian programs were found to have average POC scores 3.64 and 3.52 points higher, respectively, than sectarian MSW programs. These findings indicate sectarian MSW programs are either less successful in conveying to faculty and students the organizational efforts undertaken to support LGBT people or issues, or they are actually not making an effort to support LGBT people or issues at an organizational level as much as non-religious programs. Interestingly, these results seem to reflect an organizational-level manifestation of tension between religious beliefs and LGBT-support often identified as a significant barrier to individual-level LGBT-competence among social workers (Chonody et al., 2014; Kissinger et al., 2009).

Of the individual-level covariates in this analysis, it was surprising that no religious group, age, or gender identity were significant predictors of POC scores. The only significant individual-level demographic predictor of POC scores in this analysis was lesbian identity, such that lesbian participants on average had POC scores 2.69 points lower than heterosexual participants from within the same program. It is unclear why only this sub-group of LGBT faculty and students had significantly different POC scores from their heterosexual counterparts. Perhaps this finding is a positive sign that heterosexual participants, as much as gender and most sexual minorities, are aware of and willing to report on the limitations of their social work program related to organizational LGBT-competence. Nevertheless, this finding suggests lesbians were particularly critical of their program's LGBT-competence; a result that is somewhat congruent with previous research indicating LGB faculty and students have negative perceptions of how their social work program supports LGBT people and issues (Hylton, 2005, LaSala et al., 2008; Dentato et al., 2013).

(H2). A social work program with higher levels of organizational LGBT-competence will also have students with higher self-perceived individual LGB-competence.

Results from this study's second HLM analysis (HLM 2) provide evidence to confirm this hypothesis by first identifying significant between-program variation in student self-perceived LGB-competence scores (SOCCS). The proportion of the total between-program variance in SOCCS scores was 5%, suggesting a small program effect on individual LGBT-competence. This result nevertheless indicates organizational-level aspects of MSW programs did significantly contribute to the LGB-competence development of their students. Additionally, the average within-program SOCCS score for this data was 4.84 (on a scale from 1-7). This level of LGB-competence by program is similar to, but slightly higher than, previous studies that used the SOCCS to measure the mean LGB-competence of master's-level counseling students (4.63) and school counseling students ([4.03] Bidell, 2005; Bidell, 2012). Therefore results of the current study provide some evidence to suggest that MSW students included in this analysis had higher-levels of sexual minority competence compared to similar samples students from related helping professions.

Once significant between-program variance in LGB-competence scores was revealed, this analysis then directly addressed the second study hypothesis by testing the main effects of director-perceived organizational LGBT-competence (DOC) and aggregated participant-perceived organizational LGBT-competence (AggPOC) on SOCCS scores. The tests supported the second study hypothesis by revealing that both measures of organizational LGBT-competence used in this study were significantly related to individual LGB-competence. Specifically, programs with higher DOC scores and programs with higher AggPOC scores both

had students who feel more professionally competent with LGB groups. However, results indicate that main effects of program director perceptions only accounted for 14% of organizational-level variance in SOCCS scores, while main effects of aggregated student and faculty perceptions accounted for 68% of organizational-level variance in POC scores. This hints at the possibility that using the perceptions of a single program director to measure organizational LGBT-competence was not as effective a means of predicting student LGB-competence as using perceptions drawn from many faculty and student participants aggregated at the organizational level.

The final phase of this analysis provided further evidence to confirm the second study hypothesis by simultaneously testing the relationship of DOC and AggPOC to SOCCS scores, while also controlling for organizational-level program contexts and individual-level demographic characteristics. Study results show that when DOC and AggPOC were modeled simultaneously, only the AggPOC measure remained a significant predictor of individual LGB-competence. This finding further suggests that aggregating individual-level perceptions at the organizational level was a more informative measure of organizational LGBT-competence because this approach more effectively predicted individual LGB-competence. This finding relates to the earlier discussion of whether program director, faculty, or student perceptions of organizational LGBT-competence are more accurate. The findings for HLM 2 seem to call into question the accuracy of program director perceptions, or suggest that even if program director perceptions are indeed a more accurate reflection of existing indicators of LGBT-competence within a program, this "truth" is not as practically useful or valuable as the perceptions of faculty and students (accurate or not) with regards to predicting individual LGB-competence. That said, both measures of organizational LGBT-competence examined in the current study did provide

convergent evidence that MSW programs with higher organizational LGBT-competence also had students with higher levels of individual LGB-competence, thus confirming the second primary study hypothesis.

Organizational and Individual-level Covariates. At the organizational-level of HLM 2, neither program auspice nor program region were statistically significant predictors of individual LGB-competence. This finding was surprising because it indicates even though in HLM 1 sectarian programs had lower levels of organizational LGBT-competence than non-religious programs, this difference in organizational competence did not translate into significantly lower levels of LGB-competence in students from sectarian programs. This seems to suggest that students within sectarian programs were somehow able to maintain relatively similar levels of LGB-competence despite the limitations of their organizational contexts. It is possible this is because the 5% of variance in LGB-competence accounted for at the program level was not a large enough program-level effect to significantly and negatively impact the LGB-competence of students in sectarian programs.

With regards to individual-level covariates, the results of this analysis show many demographic characteristics were significant predictors of individual LGB-competence. For example, students whose sexual orientation was identified as gay, lesbian, bisexual, or "other" all had significantly higher SOCCS scores than heterosexuals from the same program. This finding was not a surprise, as it seems intuitive to expect people who identify as a sexual minority would likely have higher levels of LGB-competence than students who do not identify as a sexual minority. Findings related to the relationship between religion and individual LGB-competence show students with no religious affiliation and those that identified as Buddhist, or "other" all reported significantly higher levels of individual LGB-competence than Christian/Catholics.

Hindu students also reported significantly higher levels of individual LGB-competence, however this finding should be interpreted with caution, as there were only 3 such students in this sample. These findings were somewhat expected, as earlier research on social work student's attitudes towards homosexuality suggests fundamental or conservative religious beliefs are a predictor of negative attitudes towards LGB people (Kissinger et al., 2009; Raiz & Saltzburg, 2007) and has identified Hindu and Buddhist social work students as the religious groups with the least negative perceptions of homosexuality (Newman, Dannenfelser, & Benishek, 2002). However, the results related to religion in the current study go a bit further, to suggest that these groups not only have more positive attitudes towards LGB people, but also feel more competent in their ability to work with sexual minorities. Similar conclusions can be made regarding the relationship between race and individual LGB-competence. This study's findings demonstrate that students who identified as Black and those who identified as Latino both had significantly lower LGB-competence than White students within the same program. These results appear to be partially in line with research that identifies Black (Logie, Bridge, & Bridge, 2007), and Black and Latino (Newman, Dannenfelser, & Benishek, 2002) social work students as having particularly negative perceptions of homosexuality. Yet again, the findings of the current study go further than assessing attitudes to imply that the professional competence of students from these racial groups is particularly low with regards to support of LGB people.

(H3). A social work program with higher levels of organizational LGBT-competence will also have students with higher self-perceived individual transgender-competence.

The third HLM analysis in this study (HLM 3) provides results that confirm this final study hypothesis by first identifying significant between-program variation in student self-

perceived transgender-competence scores (GICS). The proportion of total variance in GICS scores at the program level was 6%. This indicates organizational-level aspects of MSW programs did have a small but significant program effect on student transgender-competence. The average program mean GICS score for this data was 4.68 (on a scale from 1-7). Because the GICS scale was created for the current study (using the same response pattern, question structure, and scoring as the SOCCS instrument), there are no other applications of this measure to use as a comparison for these findings. However, it is intriguing that both the between-program variation and mean program scores for this measure were similar to the corresponding results regarding the SOCCS measure described in HLM 2. This seems to suggest that while the lack of psychometric testing for this measure is a notable limitation in this study, the GICS was capable of capturing the construct of transgender-competence to some degree. Furthermore, the result indicating the program mean GICS score was lower than the program mean SOCCS score is congruent with research that shows social workers and similar helping professionals exhibit less supportive attitudes towards transgender people than sexual minorities. (Eliason, 2000; Eliason & Hughes, 2004; Logie, Bridge, & Bridge, 2007).

With identification of significant between-program variance in GICS scores, this analysis was next able to directly address the final study hypothesis by testing the main effects of director-perceived (DOC) and aggregated faculty/student perceptions (AggPOC) of organizational LGBT-competence on GICS scores. The results of these tests demonstrate preliminary confirmation of the third study hypothesis by showing that both DOC and AggPOC scores were significantly related to individual transgender-competence. More specifically, programs with higher DOC scores and programs with higher AggPOC scores both had students who feel more professionally competent with transgender people. Estimates of the effect size of

these findings revealed, however, that program director perceptions accounted for 21% of organizational-level variance in GICS scores, while main effects of aggregated student and faculty perceptions accounted for 63% of organizational-level variance in POC scores. As in HLM 2, these findings suggest using perceptions of a single program director to measure organizational LGBT-competence was not as effective a predictor of individual-level cultural competence as aggregated perceptions of many faculty and student participants. It was surprising how similar these findings were to the corresponding results regarding SOCCS scores examined in HLM 2. This similarity may signify further evidence that the GICS was a useful measure of transgender-competence, and that patters identified in the current study regarding the relationship between organizational LGBT-competence and transgender-competence appear to mirror patterns of the relationship between organizational LGBT-competence and LGB-competence. An alternative interpretation is that this pattern indicates participant's inability to differentiate between sexual orientation and gender identity material, and thus results concerning both distinct issues end up looking quite similar.

The final phase of HLM 3 provided more evidence to confirm the final study hypothesis by controlling for organizational-level program contexts and individual-level demographic characteristics, while also simultaneously testing the relationship of DOC and AggPOC to GICS scores. Here, as in HLM 2, when DOC and AggPOC were included in the same model, only the AggPOC measure of organizational LGBT-competence showed to be a significant predictor of student transgender competence. This finding again suggests that, with regards to predicting student cultural competence, the most practically useful measure of organizational-level cultural competence was the aggregated faculty and student perceptions; not the potentially more accurate perceptions of a single program director. The continued significance of AggPOC in this

final phase of HLM 3 provides strong evidence to confirm the final study hypothesis that MSW programs with higher organizational LGBT-competence also had students with higher levels of transgender-competence.

Organizational and Individual-Level Covariates. As in HLM 2, neither program auspice nor region proved to be significant organizational-level predictors of transgender-competence. This again was a surprising finding because it provides more evidence to suggest the lower levels of organizational LGBT-competence noted among sectarian programs did not seem to negatively impact the individual-level cultural competence of their students to a significant degree.

At the individual level, many demographic characteristics were significant predictors of transgender-competence. However, the most interesting finding related to demographic characteristics was the non-significance of transgender/other gender identity as a predictor of transgender-competence. This finding was quite surprising and counterintuitive, as it seems logical that students who identify as transgender/other would report higher levels of professional competence with their own gender minority identity group than students who identify as male or female. Instead, sexual orientation was a better predictor of transgender-competence, such that students who identified as lesbian, gay, bisexual, and "other" all showed higher GICS scores than heterosexual students from the same program. One potential explanation for why transgender/other identity did not show to be a significant predictor of transgender-competence while sexual orientation was may be that sexual minorities made up approximately 30% of the student participant sample, while transgender/other identity accounted for about 5%. Therefore, it might have been more likely to detect significant results related to sexual orientation compared to gender identity. Another possible explanation may be that transgender people are more aware

of the broad intragroup diversity among transgender-identified people, and thus are more aware of their limited competence with other transgender people. Relatedly, this finding could reflect an overestimation of transgender-competence among non-transgender LGB people, due to ignorance of transgender issues or conflation with sexual orientation issues. And yet another alternative and speculative explanation may be that internalized transphobia among transgender student participants negatively impacted their GICS scores. Defined as the acceptance of negative societal stereotypes and attitudes about transgender people among transgender people, internalized transphobia has been noted as a significant obstacle in the lives of transgender people (Eliason & Hughes, 2004; Hendricks & Testa, 2012). While there is no research that addresses the transgender-competence of transgender helping professionals to support this idea, there is research that demonstrates societal stigmatization and negative attitudes towards transgender people are at higher levels than towards sexual minorities (Norton & Herek, 2012). This could suggests internalized transphobia is a particular challenge for transgender social work students, and may cause transgender students to have more negative attitudes towards themselves and people of their own gender identity, thus contributing to lower levels of transgender-competence.

Findings related to race demonstrated that only students who identified as Latino had significantly lower levels of transgender-competence, compared to White students in the same program. This result is contrary to studies that found race to be a non-significant predictor of attitudes towards transgender people in the general public (Norton & Herek, 2013) and in a sample of treatment counselors (Eliason & Hughes, 2004). With regards to religion, the pattern of factors related significantly to transgender-competence were again quite similar to the pattern of religious factors related to LGB-competence examined in HLM 2, and thus the findings of this

analysis provide similar evidence to suggest that, compared to Christian/Catholic students, students with no religious affiliation, and those that identify as Buddhist, Hindu, or "other" have significantly higher levels of transgender competence. The finding related to non-religious students and those that did not identify within one of the 5 major religions can be interpreted in the same way as the corresponding findings in HLM 2. Further, the pattern identified in the current study related to Hindu and Buddhist students in both HLM 2 and 3 appears to strengthen evidence that there is something about these religions that is positively associated with higher LGB and transgender-competence. This result is fascinating, but must be interpreted with caution, as the sample of students representing these two religions included only 23 participants. More research is necessary in order to confirm these results, and examine more specifically how religious factors may influence the development of professional cultural competence.

B.   <u>Limitations</u>

Although there are many significant and valuable findings in this study related to LGBT-competence in social work education, this research has several limitations that should be acknowledged. First, the results may be limited due to potential participation and non-response bias. Though random sampling of accredited MSW programs was used to gather the level-2 sample in this study, recruited programs could choose whether or not to participate in the research. Program directors of recruited programs were responsible for this decision. It is therefore possible biases of these individuals influenced their decision to engage with this study. If so, program directors with a more favorable view of LGBT-related research, or of their program's support of LGBT issues may have been more likely to agree to study participation, while program directors with less favorable views of the research domain or of their program's response to LGBT issues may have been less likely to agree to study participation. Similarly,

faculty and students within participating programs had the option to opt-in to the level-1 sample, and so those that did or did not participate may reflect similar biases.

A related issue that may indicate a limitation in this research is the possibility of social desirability bias among director, faculty, and student participants that could have positively inflated results. This issue may be particularly relevant among the student sub-sample of participants, as this was the only group to report self-perceived individual LGBT-competence. Because most student participants are likely aware of growing social and professional support for LGBT people and issues, their responses to measures of their LGBT-competence may reflect what they think is expected of them as social workers, rather than a true representation of their attitudes, knowledge, or skills related to gender and sexual minorities. If so, levels of individual LGBT-competence reported in this research may be positively inflated. Taken together, these potential limitations suggest that the sample included in this study may reflect a more positive picture of organizational and individual LGBT-competence than actually exists, while missing important information from programs or participants that might be less inclined to respond to participation invitations, or support LGBT-competence. It is important to note, however, that despite these potential issues, results indicate numerous faculty and student participants, and a few program directors, did report very low levels of organizational or individual-level LGBT-competence, suggesting concerns about respondent bias may be unfounded.

Another limitation to this study deals with the possibility of instrument bias. While the SOCCS scale used to measure LGB-competence is a psychometrically tested instrument with demonstrated high reliability in the current study, the GICS scale used to measure transgender-competence has not been tested or applied in any other research, and had low reliability in the current study. This brings into question the validity and reliability of this instrument. However,

this limitation was deemed acceptable for the current study for several reasons. First, no psychometrically tested measure of individual transgender-specific cultural competence exists, so there was no other option available to address this study's research question related to transgender-competence than to create a new measure that attempts to capture this concept. Second, the GICS scale was created by simply changing questions from the SOCCS scale to have a transgender-specific focus, using the same response pattern, question structure, and scoring of the SOCCS. This design was chosen so as to apply an instrument structure that has been tested on a closely related concept (LGB-competence) to the concept of transgender-competence. And finally, analysis and results of the GICS scale were designed to be independent of analysis and results of the SOCCS scale, so as to isolate this study's attention to transgender-competence, and not bring into question results related to the SOCCS by combining them with results from an untested instrument. Nevertheless, the use of the GICS scale is recognized as a significant limitation of this study, and results derived from this instrument should be interpreted cautiously.

A final issue worth noting is that this research remains limited with regards to sensitivity to intragroup difference within LGBT-competence. One way this study was specifically designed to address important gaps in knowledge related to LGBT-competence was by providing insight into differences between sexual minority (LGB) and gender minority (transgender) competence. However, results from this study do not provide information on cultural competence in social work education related to important distinctions between lesbian/gay and bisexual-specific issues. Questions related to bisexuality are included within this study's measures of organizational and individual LGBT-competence, but analysis of these measures is not nuanced enough to provide substantive findings related to bisexual-specific cultural competence. It is

recognized that such nuanced information on intragroup differences could be quite valuable, as the experiences and perceptions of bisexuals are increasingly recognized as distinct from other sexual minorities. Unfortunately the measures used in this research do not adequately engage this issue, and thus this aspect of the current research remains underdeveloped.

C.   Implications

This study's examination of LGBT-competence in social work education identified many significant findings that hold important implications for improving social work with sexual and gender minorities. These implications, discussed in detail below, can be divided into two categories: (1) implications for improving organizational and individual LGBT-competence in social work education; and (2) implications for future research related to social work education and LGBT-competence.

1.   Improving Organizational and Individual LGBT-Competence

The most important finding from this study is that a significant relationship was detected between organizational and individual LGBT-competence within schools of social work, such that programs with higher levels of organizational LGBT-competence also had students with higher levels of individual LGBT-competence. Simply put, this implies schools of social work can take substantive action at an organizational-level to improve the professional competence of future social workers related to gender and sexual minorities. Unfortunately the low program average of organizational LGBT-competence identified in this research suggests many social work programs are either not making efforts to improve their programmatic support of LGBT people or issues, or that faculty and students are unaware of such efforts. Therefore findings from this study reflect concerns from recent literature that claim support for LGBT issues in

social work education remains particularly limited (Fredriksen-Goldsen et al., 2009; LaSala et al., 2008; Messinger, 2002), while still providing empirical evidence to optimistically suggest how this weakness of social work education can be improved through specific actions.

This study's results indicate improving the LGBT-competence of social work programs could involve cultivation of LGBT-supportive learning environments through activities like: inclusion of sexual and gender minorities in organizational non-discrimination and employment policies, providing gender-neutral bathrooms, instituting LGBT student/ally groups, providing academic funding for LGBT scholarship or students, or actively recruiting faculty who identify as LGBT or an LGBT researcher/ally. Considering the wide array of approaches available, it is likely any program that wants to improve the LGBT-competence of their organizational environment could identify a strategy that fits their particular needs or abilities. One strategy that may be especially effective is creating "safe spaces" for LGBT people. This approach involves structural support of LGBT people in a number of ways, such as explicitly protecting LGBT people in program policies, adorning faculty doors or hallways with commitments to LGBT people, hosting LGBT-related groups or events within the building, and/or training faculty on how to engage appropriately with LGBT-identified co-workers or students. Because the current study identified student and faculty perceptions of their program's LGBT-competence as a particularly strong predictor of student LGBT-competence, committing to be a visible LGBT "safe space" may be a uniquely effective way for a program to both foster organizational efforts to support sexual and gender minority issues and positively influence the LGBT-competence of students. Furthermore, research suggests faculty and program structures perceived to be supportive of LGBT-issues may also have a profound influence on the specific comfort of LGBT students within schools of social work (Dentato et al., 2013). Interestingly,

because research implies improving educational environments helps attract and retain highly skilled students and faculty (Cegler, 2012), it seems taking on the challenge of improving organizational LGBT-competence may not just benefit student LGBT-competence levels and LGBT students/faculty, but also the quality of the program as a whole.

Findings from this study also imply that making an effort to incorporate LGBT content across social work course curricula is another aspect of improving organizational LGBT-competence. Both previous research and the results of the current study provide evidence to suggest social work students have lower levels of transgender-competence than LGB-competence, and social work education specifically struggles with course content related to LGBT oppression, heteronormativity/binary gender bias, and gender minority issues (Fredriksen-Goldsen et al., 2011; Martin et al., 2009). Therefore incorporation of LGBT content in social work curricula could be most effective if it emphasizes attention to transgender identity within LGBT intragroup diversity, understanding of heterosexism and binary gender bias, and how biases perpetuate structural and social inequalities experienced by LGBT people. Adopting this approach to targeting social work curricula would provide an opportunity to respond to persistent barriers to LGBT-competence in social work education while simultaneously demonstrating the relevance of LGBT content across social work concentration areas.

Relatedly, analysis of relationships between individual-level student characteristics and LGBT-competence revealed a number of specific demographic issues were predictive of higher or lower levels of competence with gender or sexual minorities. These findings imply the value of specifically addressing issues related to the complexities of personal identity in social work education, with the hope of utilizing organizational activities as a means of improving the LGBT-competence of students. For example, this study found aspects of religious affiliation,

racial identification, and sexual orientation to be significant predictors of LGBT-competence among students. Therefore social work courses could potentially improve individual-level LGBT-competence by providing opportunities to build self-awareness among students through examination of the intersections of these identity characteristics and support of sexual and gender minorities. Van Den Berg and Crisp's (2004) five steps for developing self-awareness about sexual minorities could be extrapolated to the context of social work education to help with this objective. Markman (2011) gives similar suggestions regarding self-reflection on gender minority issues, which may be especially useful considering students in the current study reported lower levels of transgender-competence than LGB-competence. Through these activities social work programs could challenge students to critically assess personal assumptions about sexual orientation and gender identity, and explore how these assumptions, and their own complex identities, may impact their capacity to work effectively with LGBT groups.

2. **Implications for Future Research**

Findings from this study provide helpful indications of how research in the future could be conducted to build upon the current research to develop greater understanding of social work education, or how to address issues of cultural competence within this context. Most importantly, this study found significant differences between perceptions of organizational LGBT-competence among MSW program directors, faculty, and students. The implications of these findings suggest the importance of gathering data from multiple groups of people within an organization, so as to be able to potentially identify important differences between the experiences/perceptions of key stakeholders within the same organizational environment. Future research that is able to do so will likely get a more complete picture of organizational contexts, and their relationship to questions of interest.

    The fact that the current research presents empirical evidence of the relationship of

organizational contexts to individual cultural competence is another aspect of this study that

holds implications for future research. Examining cultural competence in this way has not been

attempted in any previous social work education research, and provides a much needed expanded

view of cultural competence that goes beyond exploration of individual-level factors. This

implies that future studies that examine the issue of cultural competence of social workers

(whether in social work education or other organizational contexts) would benefit from including

some empirical examination of organizational contexts and their relationship to other levels of

analysis. The use of hierarchically structured data and HLM analysis in the current study were

particularly appropriate and informative methods of achieving this aim, as they facilitated the

identification of important differences between schools of social work. It seems, then, that future

examination of concepts of cultural competence or social work educational contexts would likely

benefit from the use of methods capable of accounting for this between-program variance. It is

important to note, however, that these methods are difficult to achieve because they require very

large sample sizes, and data at multiple levels of analysis that have very few missing values.

Another important issue with this type of research is the question of how to characterize

variables at higher levels of the hierarchical structure. In this study, the use of data drawn from

individual program directors to represent an organizational-level variable was intended to serve

as a proxy for the "truth" of a program's LGBT-competence. However, as discussed earlier, this

organizational-level measure was not as practically useful with regards to predicting individual-

level LGBT-competence as a collection of level-1 respondent data aggregated at the

organizational level. This issue implies that future research that attempts to use HLM analysis

within social work education, or other organizational contexts, should attempt to gather many

different measures of an organizational-level construct, so as to be able to test the practical utility of each with regards to primary outcomes of interest.

Finally, while the results of this study provide new insight into LGBT-competence in social work education, it is important to state that there remains a need for further research in this domain. As mentioned earlier, future research could address this need by exploring intragroup differences in cultural competence that specifically address bisexual issues, for example. Or studies in the future could attempt to gather more information about individual-level respondents (for example, information related to personal experiences with LGBT people/issues) as a way to get a fuller picture of important individual-level indicators of LGBT-competence. Similarly, studies could improve understanding social work programs by examining policy documents, course syllabi, etc. as an additional way to evaluate organizational LGBT-competence. Another potentially helpful way to develop a more nuanced understanding of issues addressed in this study would be to gather longitudinal data from students throughout and after their MSW experience, as a means of assessing the relationship of organizational factors and changes in LGBT-competence over time.

D. <u>Conclusions</u>

This study is the first to empirically examine the relationship between organizational contexts of schools of social work and the development of LGBT-competence among master of social work students. Many aspects of this research, including the theoretical framework, study design, and results, contribute new and valuable information to inform our understanding of the intersections of cultural competence, LGBT issues, and social work education. First, this research endeavored to asses support for LGBT-issues within social work education through

multiple levels of analysis, so as to contribute to a more complex conceptualization of LGBT-competence. Second, the use of hierarchically structured data with information gathered from multiple types of people allowed for identification of important differences between MSW programs, and perceptions of key stakeholders within schools of social work that had previously been unknown. And finally, through the use of specific measures of LGB and transgender-competence, this study reflects recognition of the need for nuanced attention to the important differences between sexual and gender minority issues in social work education.

Based on the results of this study, schools of social work appear to have different levels of organizational LGBT-competence that are significantly related to how prepared their students feel to work with LGBT clients. This suggests that through greater attention to how well organizational policies, program structures, course curricula, and resources reflect support of LGBT people or issues, MSW programs could significantly improve their student's ability to work with sexual and gender minorities. However, the findings of this study also reveal that MSW program directors, faculty members, and students do not agree on how well their shared program reflects LGBT-competence. These differences in perception have important implications for the competence development of students. This suggests that not only should programs make efforts to develop greater organizational LGBT-competence, but these efforts should be overtly demonstrated to faculty and students within schools of social work, so as to clearly convey the value LGBT-competence holds within organizational contexts. It is hoped that taking on these challenges will increase social work education's capacity to produce professionals who are effective in combating stigmatization and oppression often experienced by LGBT people. Realizing this objective will ultimately contribute to developing social workers

that embody the values and ethics of the profession through an improved ability to support the

needs of increasingly diverse populations in pursuit of greater social equality.

APPENDICES

APPENDIX A

Three-Item Participant Eligibility Screen

Program Director-Specific Eligibility Screen

1. Are you currently a:
   o MSW program director? (Yes/No)
2. Have you completed at least 1 semester in this administrative position within your current social work program? (Yes/No)
3. Are you 18 years-old or older? (Yes/No)

MSW Faculty/Student Eligibility Screen

1. Are you currently a:
   o Full time social work faculty member? (Yes/No)
   o MSW student? (Yes/No)
2. Have you completed at least 1 semester as faculty member or MSW student in your current social work program? (Yes/No)
3. Are you 18 years-old or older? (Yes/No)

APPENDIX B

Modified SOGE Survey: Organizational LGBT-Competence

Implicit Curriculum
Program Structure
For each of the following questions please indicate which choice best describes your social work program.

Does your social work program have any of the following?
Please select one answer for each. (Yes No Don't Know)

1. LGBT student group(s)
2. Nondiscrimination policy that includes sexual orientation161
3. Nondiscrimination policy that includes gender identity/expression
4. Do the facilities in which your program is located have any gender-neutral bathrooms?

Program Admissions
For each of the following questions please indicate which choice best describes your social work program's admissions process. Please select one answer for each. (Yes No Don't Know)

5. Does your program's admissions application ask applicants to identify their sexual orientation?

6. In addition to "male" and "female", does your program's admissions application include a category for applicants to identify as "other" gender or "transgender"?

7. Does your program engage in outreach to potential LGBT applicants?

Social Work Faculty Members
For each of the following questions please indicate which choice best describes your social work program's faculty members. Please select one answer for each. (Not at all knowledgeable, slightly, fairly, very knowledgeable)

Does your social work program currently have any openly LGBT faculty? Please select one answer for each.(Yes No Don't Know)

8. Full-time faculty members
9. Part-time faculty members
10. Does your social work program have any faculty whose area of scholarship focuses on sexual orientation, gender identity/expression, or LGBT people?
11. In the past two years, has your social work program provided any professional development opportunities focusing on sexual orientation, gender identity/expression, or LGBT people?

Social Work Students

For each of the following questions please indicate which choice best describes the students in your social work program.

12. Have there been any openly lesbian, gay, or bisexual students in your social work program during the past two years? (yes/no/don't know)
13. Have there been any openly transgender students in your social work program during the past two years? (yes/no/don't know)

Assessment

For each of the following questions please indicate which choice best describes your social work program's assessment plan and outcomes.

14. In your program's assessment plan, do you assess the competence of your graduates in working with LGBT individuals?
    o Yes
    o No
    o Don't Know
    o

<div align="center">

Explicit Curriculum

</div>

Field Education

15. Does your program have any field placements where there is an opportunity to work specifically with LGB issues or with LGB clients? (Yes/no/don't know)
16. Does your program have any field placements where there is an opportunity to work specifically with transgender issues or with transgender clients? (Yes/no/don't know)

Social Work Curriculum

For each of the following questions please indicate which choice best describes your social work program's curriculum. (Yes/no/don't know)

17. Do your courses on diversity include content on sexual orientation, or LGB people?
18. gender identity/expression, or transgender people?
19. Is content on human sexuality covered in any of your required courses?
20. During the past two years, has your program offered a course that focuses on human sexuality?

Does your program offer a course that focuses specifically on LGBT issues?

APPENDIX C

Demographic Questionnaire

1. What is your current age in years? _____
2. What is your primary race/ethnicity? (check one)

    o   African American/Black
    o   Caucasian/white
    o   Latino/Hispanic non-white
    o   Pacific Islander or Native American
    o   Asian
    o   Other _____
3. a. What is your current gender identity?
    o   Transgender
    o   Male
    o   Female
    o   Other _____
    o   I don't label my gender
4. What is your sexual orientation?
    o   Lesbian
    o   Gay
    o   Bisexual
    o   Heterosexual
    o   Other _____
    o   I don't label my sexual orientation
5. What is your religious affiliation?
    o   No religious affiliation
    o   Christian
    o   Jewish
    o   Muslim
    o   Hindu
    o   Buddhist
    o   Other _____

APPENDIX D

Modified Sexual Orientation Counselor Competency Scale (SOCCS)

Pattern Matrix Factor Loading Estimates

(Note: LGB = lesbian, gay, and bisexual. Asterisks indicate items are negatively scored)

Item Summary	Factor Loading		
	1	2	3
Skills Subscale			
I have experience counseling gay male clients	0.95	0.03	-0.03
I have experience counseling lesbian or gay couples	0.94	0.02	-0.12
I have experience counseling bisexual (male/female) clients	0.91	0	-0.02
I have experience counseling lesbian clients	0.84	0	-0.01
At this point in my professional development, I feel competent, skilled, and qualified to counsel LGB clients	0.65	-0.03	0.01
I have been to in-services, conference sessions, or workshops, which focused on LGB issues in social work	0.64	-0.07	0.14
I feel competent to assess the needs of a person who is LGB in a social work setting	0.56	-0.04	-0.01
I have received adequate clinical training and supervision to counsel LGB clients	0.53	-0.02	0.05
I have done counseling role-play as either the client or counselor involving a LGB issue	0.42	0.04	0.09
Currently, I do not have the skills or training to do a case presentation or consultation if my client were LGB*	-0.41	0.02	0.14
I check up on my LGB social work skills by monitoring my functioning/competency via consultation, supervision, and continuing education	0.36	-0.03	0.02
Attitudes Subscale			
The lifestyle of a LGB client is unnatural or immoral *	-0.09	0.85	-0.03
Personally, I think homosexuality is a mental disorder or a sin and can be treated through counseling or spiritual help*	0.02	0.85	0.05
When it comes to homosexuality, I agree with the statement: "You should love the sinner but hate or condemn the sin."*	-0.06	0.82	0.02
I believe that LGB couples don't need special rights (domestic partner benefits, or the right to marry) because that would undermine normal and traditional family values.*	0.02	0.7	-0.07

It would be best if my clients viewed a heterosexual lifestyle as ideal.*	-0.02	0.64	0.03
I think that my clients should accept some degree of conformity to traditional sexual values.*	0.02	0.54	0.07
I believe that all LGB clients must be discreet about their sexual orientation or gender identity around children.*	-0.09	0.46	-0.15
It's obvious that a same sex relationship between two men or two women is not as strong or as committed as one between a man and a woman.*	0.06	0.42	0.14
I believe that being highly discreet about their sexual orientation is a trait that LGB clients should work towards.*	0.08	0.36	-0.04
I believe that LGB clients will benefit most from support from a heterosexual social worker who endorses conventional values and norms.*	0.22	0.36	-0.1
Knowledge subscale			
I feel that sexual orientation differences between counselor and client may serve as an Initial barrier to effective counseling of LGB individuals.	-0.02	0.05	0.79
Being born a heterosexual person in this society carries with it certain advantages.	0.06	-0.02	0.61
I am aware some research indicates that LGB clients are more likely to be diagnosed with mental Illnesses than are heterosexual clients.	0.15	0.07	0.46
I am aware that social workers frequently impose their values concerning sexuality and gender upon LGB clients.	0	0.06	0.58
Heterosexist and prejudicial concepts have permeated the mental health professions.	0.06	-0.08	0.48
LGB clients receive "less preferred" forms of counseling treatment than heterosexual clients.	-0.15	-0.06	0.45
I am aware of institutional barriers that may inhibit LGB people from using social work services.	0.18	0.04	0.4
There are different psychological/social issues impacting gay men versus lesbian women.	-0.09	0.05	0.35

APPENDIX E

The Gender Identity Competency Scale (GICS)

(Note: Transgender = those who expresses their gender in a way other than the traditional male/female gender binary; Asterisks indicate negatively scored items)

Item Summary
Skills Subscale
I have experience counseling transgender clients
At this point in my professional development, I feel competent, skilled, and qualified to support transgender clients
I have been to in-services, conference sessions, or workshops, which focused on transgender issues in social work
Attitudes Subscale
The lifestyle of a transgender client is unnatural or immoral*
When it comes to transgender identity, I agree with the statement: "You should love the sinner but hate or condemn the sin."*
I think that my clients should accept some degree of conformity to traditional gender roles.*
Knowledge subscale
I feel that gender identity differences between counselor and client may serve as an Initial barrier to effective counseling of transgender individuals.
I am aware of institutional barriers that may inhibit transgender people from using social work services.
There are different psychological/social issues impacting transgender people versus gay men and lesbian women

APPENDIX F

SOGE Items Not Included in Analyses (Faculty/Student Participants)

Implicit Curriculum

Social Work Faculty Members
For each of the following questions please indicate which choice best describes your social work program's faculty members. Please select one answer for each. (Not at all knowledgeable, slightly, fairly, very knowledgeable)

1. In general, how knowledgeable would you say your program's faculty members are about sexual orientation and lesbian, gay, and bisexual people?
2. *In general, how knowledgeable would you say your program's faculty members are about gender identity/expression and transgender people*

Social Work Students
For each of the following questions please indicate which choice best describes the students in your social work program.

3. In your opinion, how comfortable are LGBT students likely to feel in your program?
   o Not at all comfortable
   o Slightly comfortable
   o Fairly comfortable
   Very comfortable

Assessment
For each of the following questions please indicate which choice best describes your social work program's assessment plan and outcomes.

4. In your view, how well does your social work program train its students to provide competent social work services to LGBT individuals?
   o Not at all well
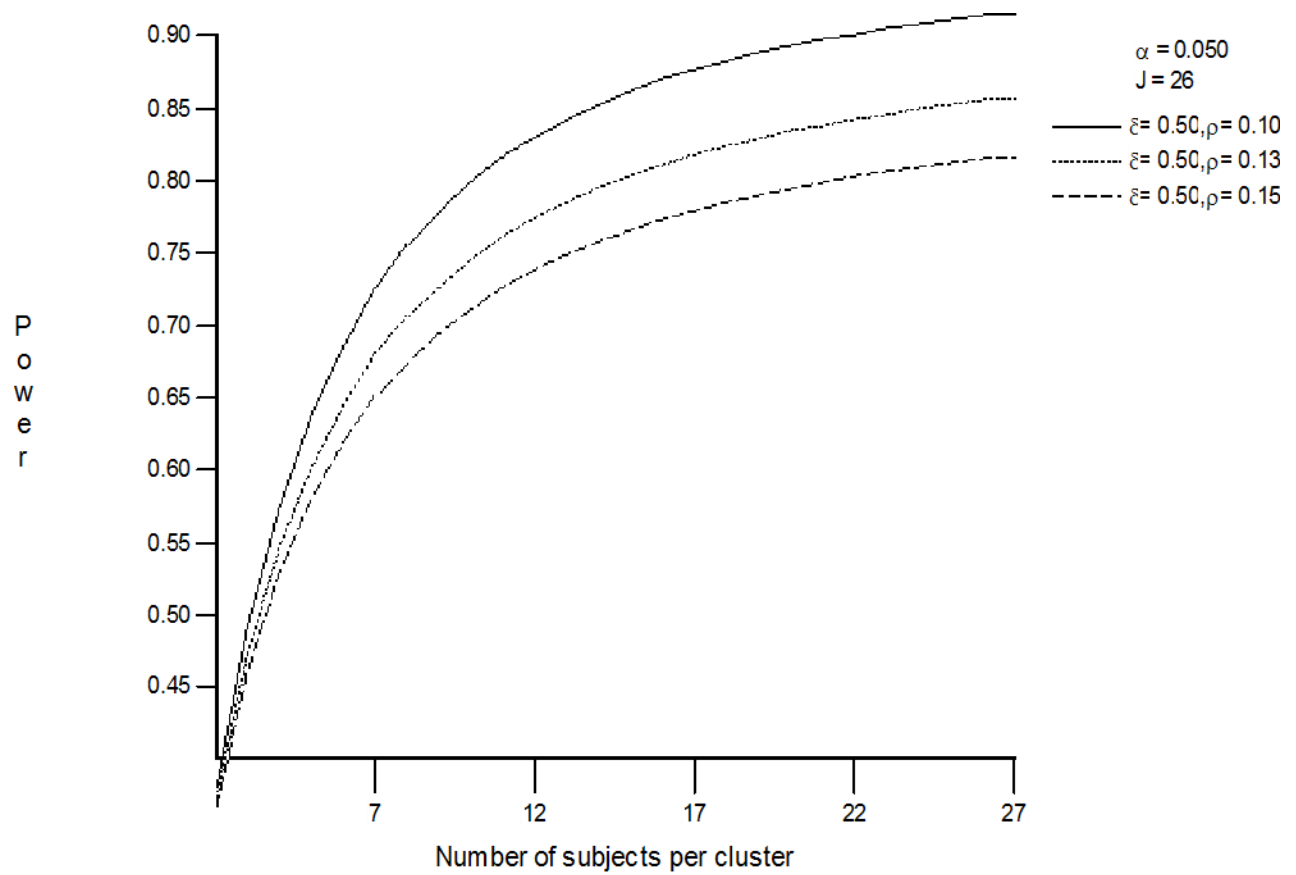   o Slightly well
   o Fairly well
   o Very well

APPENDIX G

HLM estimates of statistical power at various ICC and group sizes (N= 36)
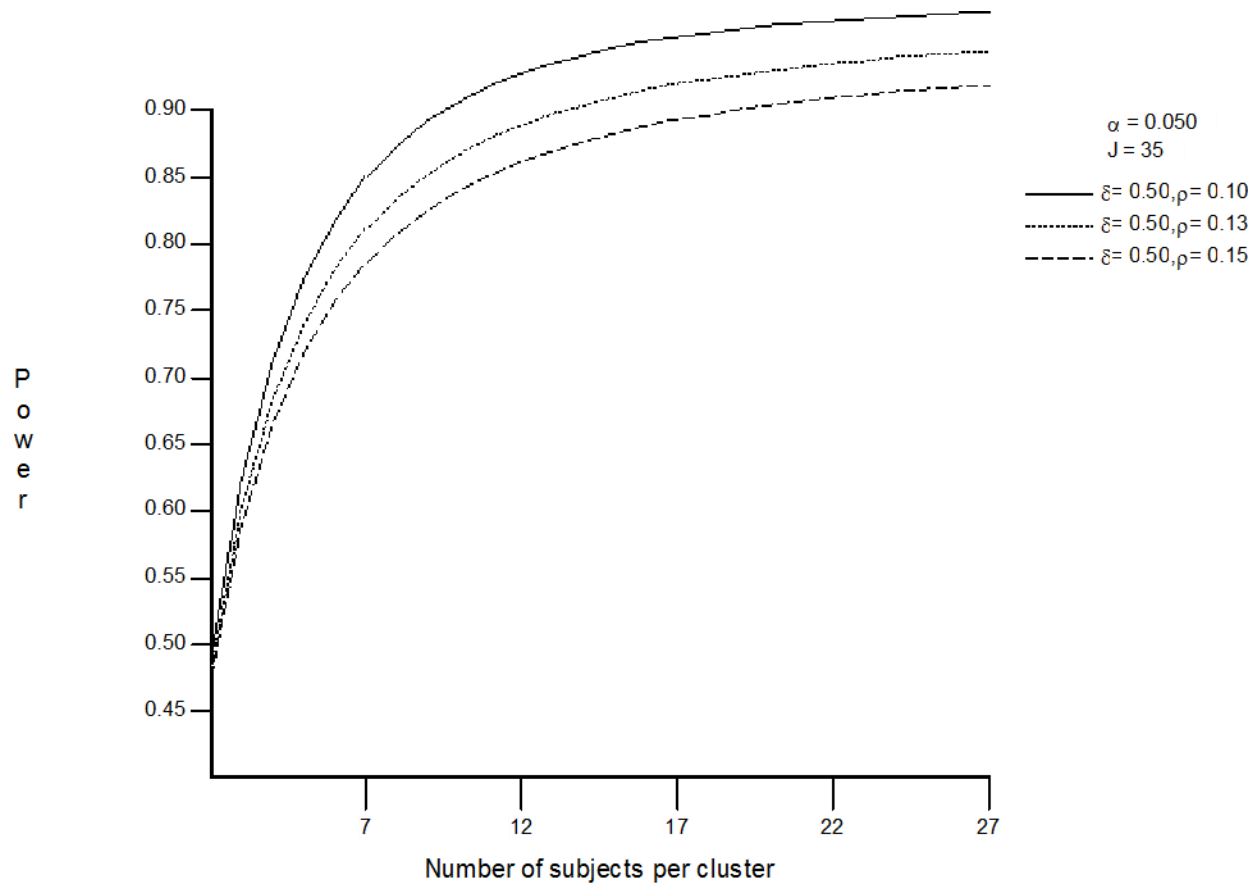
APPENDIX H

HLM estimates of statistical power at various ICC and group sizes (N= 26)

APPENDIX I

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Approval Notice

Initial Review (Response To Modifications)

April 1, 2014

David McCarty-Caplan, MA

Jane Addams School of Social Work

1030 N Winchester Ave

Chicago, IL 60622

Phone: (773) 682-2060

RE: **Protocol # 2014-0133**

        "LGBT-Competence in Social Work Education"

Dear Mr. McCarty-Caplan:

Your Initial Review application (Response To Modifications) was reviewed and approved by the Expedited review process on March 27, 2014. You may now begin your research.

Please note the following information about your approved research protocol:

Protocol Approval Period: March 27, 2014 - March 27, 2015

Approved Subject Enrollment #:   1,968

Additional Determinations for Research Involving Minors: These determinations have not been made for this study since it has not been approved for enrollment of minors.

Performance Site: UIC

Sponsor: None

Research Protocol:

 a) LGBT-Competence in Social Work Education; Version 2; 02/26/2014

Recruitment Materials:

 a) Faculty Recruit Email; Version 3; 03/19/2014
 b) Student Reminder; Version 3; 03/19/2014
 c) Faculty Reminder; Version 3; 03/19/2014
 d) Student Recruit Email; Version 3; 03/19/2014
 e) Director Recruit Email; Version 3; 03/19/2014
 f) Director Tele Script; Version 3; 03/19/2014

Informed Consents:

 a) Subject Info Sheet; Version 3; 03/19/2014
 b) A waiver of documentation of consent and an alteration of consent has been granted for

 this online research under 45 CFR 46.117(c)(2) and 45 CFR 46.116(d) (minimal risk; subjects will be presented with an information sheet that contains all of the essential elements of consent)

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific category:

(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the Review History of this submission:

Receipt Date	Submission Type	Review Process	Review Date	Review Action
02/06/2014	Initial Review	Expedited	02/12/2014	Modifications Required
03/04/2014	Response To Modifications	Expedited	03/12/2014	Modifications Required

| 03/24/2014 | Response To Modifications | Expedited | 03/27/2014 | Approved |

Please remember to:

→ Use your **research protocol number** (2014-0133) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure,

   "**UIC Investigator Responsibilities, Protection of Human Research Subjects**"
   (http://tiger.uic.edu/depts/ovcr/research/protocolreview/irb/policies/0924.pdf)

Please note that the UIC IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 996-2014. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Sandra Costello

Assistant Director, IRB # 2

Office for the Protection of Research Subjects

Enclosures:
        1. UIC Investigator Responsibilities, Protection of Human Research Subjects
        2.   Informed Consent Document:

a) Subject Info Sheet; Version 3; 03/19/2014
3. **Recruiting Materials:**
   a) Faculty Recruit Email; Version 3; 03/19/2014
   b) Student Reminder; Version 3; 03/19/2014
   c) Faculty Reminder; Version 3; 03/19/2014
   d) Student Recruit Email; Version 3; 03/19/2014
   e) Director Recruit Email; Version 3; 03/19/2014
   f) Director Tele Script; Version 3; 03/19/2014

cc: Creasie Hairston, Jane Addams School of Social Work, M/C 309
       Christopher Mitchell (faculty advisor), Jane Addams School of Social Work, M/C 309

CITED LITERATURE

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Dissertation**:** *LGBT-Competence in Social Work Education*: *Faculty and student perspectives and the relationship of school factors to professional competence*

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RESEARCH SPECIALIZATION

The intersections of policy, social work education and practice with special focus on support of LGBT populations, HIV/AIDS prevention, and adolescent health

PEER-REVIEWED PUBLICATIONS

McCarty-Caplan, D. (2015). Sex education and support of LGB families: A Family Impact Analysis of the Personal Responsibility Education Program. *Sexuality Research and Social Policy*, 1-11.

McCarty-Caplan, D., Jantz, I., Swartz, J. (2014). MSM and drug use: A latent class analysis of drug use and related sexual risk behaviors. *AIDS and Behavior. 18(7)*, 1339-1351.

McCarty-Caplan, D. (2013). Schools, sex education, and support for sexual minorities: Exploring historic marginalization and future potential. *American Journal of Sexuality Education. 8(4)*. 246-273.

McCarty-Caplan, D. (2013). Book Review: Social service workplace bullying: A betrayal of good intentions. *Affilia, 29(1)*, 120-1

Submitted Manuscripts
McCarty-Caplan, D. (Revised and Resubmitted). Improving GLBT-competence in social work: Applying multidimensional cultural competence to social work education. Submitted to the *Journal of Gay and Lesbian Social Services*.

Manuscripts in Preparation
Jantz, I., McCarty-Caplan, D., Swartz, J. Changing drug use patterns and HIV-risk among men who have sex with men: A Latent Transition Analysis

McCarty-Caplan, D., Walton, Q., Elaesser Gantz, C., Horevitz, E. Student participation and networking at professional academic conferences: Examining experiences and suggestions of doctoral students of social work.

PRESENTATIONS

Juried Professional Conferences
McCarty-Caplan, D., Jantz, I. *MSM and Drug Use: A Latent Class Analysis of Drug Use and Related Sexual Risk Behaviors among Men who have Sex with Men*. Presented at the Annual Conference for the Society of Social Work Research, San Antonio, TX, January 17, 2014

McCarty-Caplan, D., Jantz, I., Swartz, J. *MSM and Drug Use: A Latent Class Analysis* Presented at the Annual LGBTQ Health and Wellness Conference. Chicago IL, November 31, 2012. (winner of one of two Awards for Excellence in Research).

McCarty-Caplan, D. *Improving LGBTQ Education in Social Work: Applying Multidimensional Cultural Competence*. Presented at the Annual Program Meeting of the Council on Social Work Education. Washington, D.C., November 11, 2012.

McCarty-Caplan, D. *HIV/AIDS and Sexual Minority Issues: Using an EPAS Framework to Confront Disparities*. Presented at the Annual Program Meeting of the Council on Social Work Education. Tampa, FL, October 28, 2011.

Jantz, I., McCarty-Caplan, D., Rollock, N., Swartz, J. *Multi-Morbidity, Serious Mental Illness, and Substance Use Disorders: An Analysis of Factors Related to Medical Complexity.* Presented at the Annual Conference for the Society of Social Work Research, Tampa, FL, May 7, 2010.

Invited Presentations
Panel member. *Professional and Academic Networking 101*. Social Work Brown Bag Series. Jane Addams College of Social Work, University of Illinois at Chicago, Chicago, IL, October 10, 2013, 90 minutes.

Guest lecturer. *The History of School-Based Sex Education*. Health Education 107: Health for Effective Living, Northeastern Illinois University, Chicago, IL. November 11, 2012, 90 minutes.

Guest lecturer. *LGBTQ Experiences with Violence.* Social Work 544: Community Violence, Jane Addams College of Social Work, University of Illinois at Chicago, Chicago, IL, March 23, 2011; April 21, 2010, 180 minutes.

Guest lecturer. *Drug-Use and LGBTQ Populations.* Mental Health 231: Addictions Treatment of Special Populations, Harold Washington College, Chicago, IL, November 10, 2011, 90 minutes.

Panel Member. *Professionals of Color: Minority Identity in Helping Professions.* William Jones College Preparatory High School, Chicago, IL, May 18, 2009, 90 minutes.

TEACHING EXPERIENCE

Spring, 2013-2015   Instructor. Social Welfare Policy and Services (Policy I), Jane Addams College of Social Work, University of Illinois, Chicago.

Fall, 2013, 2012   Instructor. HIV/AIDS: Social Work Challenges, Jane Addams College of Social Work, University of Illinois, Chicago.

Fall, 2010   Teaching Assistant. Health Education & Promotion, School of Public Health: Community Health Sciences, University of Illinois, Chicago.

Teaching Interests

Policy Analysis and History	Human Behavior and the Social Environment
Macro Practice	HIV/AIDS and Social Work
At-risk Youth	LGBT People & Communities
Human Sexuality	Organizational Research Methods
Drug Use and Incarceration	Community Violence

PRACTICE EXPERIENCE

Full Time Positions
Centerforce, San Rafael, & the University of California at San Francisco (UCSF) Center for AIDS Prevention Studies, California
The Get SET (Structural Ecosystems Therapy) Project
Funded by a grant from National Institute of Mental Health
HIV Transitional Counselor
May 2005 – August 2007

- Implemented harm reduction-based Structural Ecosystem Therapy for 52 HIV positive individuals (and their families) transitioning from incarceration
- Collaborated with over 20 community based organizations in the Bay Area

Seneca Center, San Leandro, California
Senior Counselor
September 2003- April 2005

- Provided mental health counseling and behavior modification for emotionally disturbed youth in both classroom and residential settings
- Led and trained co-workers in safe implementation of crisis interventions

Graduate Student Internships
Illinois Caucus for Adolescent Health (ICAH), Chicago, Illinois
Youth Activist Project Trainer & Coordinator
September 2008 – June 2009

- Trained youth activists on increasing community awareness of sexual health issues
- Designed and facilitated social actions and roundtables for community members

Schwab Rehabilitation Hospital, Chicago, Illinois
Case Manager & Patient Advisory Council Coordinator
September 2007- June 2008

- Created an advisory council comprised of hospital patients and their families
- Managed career/education support program for clients with acquired disabilities

RESEARCH POSITIONS

Jane Addams College of Social Work and the University of British Columbia
Interventions to Enhance Cultural Competence of Service Systems and Reduce Health Inequities: A Multidisciplinary Perspective.
Funded by a grant from the Canadian Institute of Health Research
Research Assistant, University of Illinois, Chicago, Chicago, IL, 2011-2012.

- Collaborated with an academic research team on a meta-analysis of cultural competence intervention literature
- Evaluated and abstracted cultural competence literature according to the Preferred Reporting Items for Systematic Review and Meta-Analysis

Midwest AIDS Training and Education Center (MATEC)
Research Assistant, University of Illinois, Chicago, Chicago, IL, 2009-2011.

- Developed web-based outcome evaluation surveys for regional HIV/AIDS training programs for medical professionals
- Administered and evaluated outcome surveys for over 700 HIV/AIDS programs

Training Early Achievers for Careers in Health (TEACH) Research Program
Program Coordinator, University of Chicago Medical Center, Chicago, IL, 2008- 2009.

- Implemented and analyzed an Experience Sampling Method of data collection regarding career-ambition behavior among high-school age youth
- Mentored student research participants on educational and career goals

PROFESSIONAL AFFILIATIONS & SERVICE

- Member, Latino Social Work Organization (LSWO), 2013-present
- Member, Caucus of LGBT Faculty and Students in Social Work, 2011-present
- Member, Society of Social Work and Research (SSWR), 2010- present
- Member, National Academy of Social Workers (NASW), 2008-present
- Assistant Editor, *Journal of HIV/AIDS and Social Work*, 2009-2012
- Student Representative, Jane Addams College Faculty Doctoral Committee, Jane Addams College of Social Work, University of Illinois, Chicago, 2011-2012.
- Volunteer, AIDS Foundation of Chicago, 2008-2009

AWARDS & HONORS

2012   Award for Research Excellence, LGBTQ Health & Wellness Conference, Northwestern University & the Center on Halsted.

2007-2009   The Jane Mullenbach Moore Scholarship, School of Social Service Administration, University of Chicago.

1999-2003   University Honors, University of Michigan, Ann Arbor.

STATISTICAL & TECHNOLOGY SKILLS

Experience with:
- A variety of elementary and advanced multivariate techniques including Hierarchical Linear Modeling (HLM) and Latent Class Analysis (LCA)
- Web-hosted survey software such as Qualtrics and Survey Monkey
- Quantitative/qualitative data analysis software: HLM, SPSS, GPower, and ATLAS.ti.
- Presentation software for research and education such as Prezi and Powerpoint
- Microsoft Office Suite including Excel, Word, and Outlook

PROFESSIONAL FOUNDATIONS

Community Health Outreach Certified
Institute for Community Health Outreach
San Francisco, CA, 2005

LGBTQ Counseling Technique
Harm Reduction Coalition
Oakland, CA, 2005, 2006

Harm Reduction Counseling
Harm Reduction Coalition
Oakland, CA, 2005, 2006

Re-evaluation Counseling
The International RC Communities
Oakland, CA, 2003-2005

LANGUAGE

Spanish: proficient reading, writing, and speaking competencies

REFERENCES

Christopher Mitchell, MSW, PhD (dissertation chair and academic advisor)
Associate Dean for Academic Studies and the Doctoral Program
Jane Addams College of Social Work, University of Illinois, Chicago
cgm@uic.edu

James Martin, MSW, PhD (dissertation committee member)
Associate Professor of Social Work
Silver School of Social Work, New York University
James.martin@nyu.edu

James Swartz, PhD (dissertation committee member, research advisor)
Associate Professor of Social Work
Jane Addams College of Social Work, University of Illinois, Chicago
jaswartz@uic.edu

Shelley Craig, RSW, LCSW, PhD (professional advisor)
Assistant Professor of Social Work
Factor-Inwentash Faculty of Social Work, University of Toronto
Shelley.craig@utoronto.ca